

SEQUENCE LISTING

<110> diaDexus, Inc.
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Turner, Leah
Sun, Yongming

<120> Compositions, Splice Variants and Methods Relating to Breast
Specific Genes and Proteins

<130> DEX-0451

<150> US 60/431,097

<151> 2002-12-05

<150> US 60/431,122

<151> 2002-12-05

<160> 182

<170> PatentIn version 3.1

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 <212> DNA
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11

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 <212> DNA
 <213> Homo sapien

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12

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13

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<213> Homo sapien

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<211> 4171
<212> DNA
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15

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16

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 <212> DNA
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17

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18

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19

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 <212> DNA
 <213> Homo sapien

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<212> DNA
<213> Homo sapien

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 <213> Homo sapien

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<210> 29
 <211> 1413
 <212> DNA
 <213> Homo sapien

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24

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<212> DNA
<213> Homo sapien

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25

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26

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<212> DNA

<213> Homo sapien

<400> 31

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27

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<211> 2620

<212> DNA

<213> Homo sapien

<400> 33

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29

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<211> 2787
<212> DNA
<213> Homo sapien

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30

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31

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<212> DNA
<213> Homo sapien

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<210> 36
<211> 893
<212> DNA
<213> Homo sapien

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32

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<212> DNA

<213> Homo sapien

<400> 37

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36

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<212> DNA

<213> Homo sapien

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37

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<211> 1032

<212> DNA

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38

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39

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<212> DNA

<213> Homo sapien

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41

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<210> 44
<211> 1616
<212> DNA
<213> Homo sapien

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<400> 44
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```

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gacctaatgt ccaaagctga gaagaatggg gtgaagatta ccttgccctgt tgactttgtc 780
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```

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<210> 45
<211> 1217
<212> DNA
<213> Homo sapien

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<400> 45
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gctatttttc ttgttgcatc ttttctactt cagtacactt ggtgtactgg gttaatggct 600
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aactgttaga tgctgaatat ctgttcactt ttcaatccca attctgtccc aatcttacca 720

```

44

```

gatgctactg gacttgaatg gttaataaaa ctgcacagtg ctggttggtgg cagtgacttc      780
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tggtggccttt ggggctggta gaaataccca acgcacaaat gaccgcacgt tctctgcccc      900
gtttcttgcc ccagtgtggt ttgcattgtc tccttccaca atgactgctt tgtttggatg      960
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gttctgtgtc ccttttaaaa ggcagattaa aagcacaagc gtgtttctag agaacagttg      1080
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tcctcatcct ttcttgccat aaaagctatg acacgagaat cagaatatta ataaaacttt      1200
atgtactgct gtagcaa                                1217

```

<210> 46
 <211> 376
 <212> DNA
 <213> Homo sapien

```

<400> 46
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ctggggaagc ggggagaggg gtcagggagg ctaatggttg ctttctgtaa tgtttctggg      180
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cttttcttac ctattcaagg aatacgtgcc tttttcttaa atgctttcat ttattgaaaa      300
aaaaaaaaat gccccaaaag cactatgctg gtcatgaact gcttcaaaat gtggaggtaa      360
taaaatgcaa ctgtgt                                376

```

<210> 47
 <211> 1476
 <212> DNA
 <213> Homo sapien

```

<400> 47
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atggcctacc acagcttcct ggtggagccc atcagctgcc acgcctggaa caaggaccgc      180
accagattg ccatctgccc caacaacat gaggtgcata tctatgaaaa gagcggtgcc      240
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gccccgaga gtaaccgtat tgtgacctgc ggcacagacc gcaacgccta cgtgtggacg      360
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45

```

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```

<210> 48
<211> 3431
<212> DNA
<213> Homo sapien

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```

<400> 48
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taacctaaagt tgttcagatt taggaagtga cccagtaag tcctttcggg gtttcgtgta 420
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46

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<210> 49

<211> 2283

<212> DNA

<213> Homo sapien

<400> 49

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caa						2283

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 <211> 985
 <212> DNA
 <213> Homo sapien

<400> 50
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<210> 51
 <211> 1815
 <212> DNA
 <213> Homo sapien

<400> 51
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50

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<210> 52

<211> 1298

<212> DNA

<213> Homo sapien

<400> 52

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51

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<210> 53
<211> 1566
<212> DNA
<213> Homo sapien

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<400> 53
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 aaatga 1566

<210> 54
 <211> 630
 <212> DNA
 <213> Homo sapien

<400> 54
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 tgaggggctt cggcagcccc tcatgctgta catggcatgt gtatctctgc tcttctccag 180
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53

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gcaggtcctc gttcagggcg atgtaatcct tgccgtcgta ggcgtactgg ttatgccccg 600
ggaggaggcg cccgtccggc cccacgtcgc 630

<210> 55
<211> 714
<212> DNA
<213> Homo sapien

<400> 55
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ccaagatcct gagtgacatg cgaagccaat atgaggatcat ggccgagcag aaccggaagg 180
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<210> 56
<211> 950
<212> DNA
<213> Homo sapien

<400> 56
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gaccagggtt gctccgtccg tgetccgcct cgccatgact tcctacagct atcgccagtc 180
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54

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<210> 57
 <211> 280
 <212> DNA
 <213> Homo sapien

<400> 57
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 tacaacaatt tgtctgcctc caaggctctc tgaggcagca ggctctgggg cttctgctgt 180
 cctttggagg gtgtcttctg ggtagaggga tgggaaggaa gggaccctta cccccggctc 240
 ttctcctgac ctgccaataa aaatttatgg tccaaggagg 280

<210> 58
 <211> 294
 <212> DNA
 <213> Homo sapien

<400> 58
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 gacaggaaga tcaactaac aatttgctct cctccaaggc cctctgaggc agcaggctct 180
 ggggcttctg ctgtcctttg gagggtgtct tctgggtaga gggatgggaa ggaagggacc 240
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<210> 59
 <211> 1028
 <212> DNA
 <213> Homo sapien

<400> 59
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55

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acgccgga 1028

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<210> 60
<211> 1389
<212> DNA
<213> Homo sapien

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<400> 60
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56

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ccaagggag	1389

<210> 61
 <211> 1042
 <212> DNA
 <213> Homo sapien

<400> 61	
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57

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aaaaaaaaatc	ttaaaaaaca	ct				1042

<210> 62
 <211> 718
 <212> DNA
 <213> Homo sapien

<400> 62	
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catatttact	tcttatacat ttgataaagt aaggcatggg tgtgggtaat ctgggtttatt 660
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<210> 63
 <211> 1308
 <212> DNA
 <213> Homo sapien

<400> 63	
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58

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<210> 64
<211> 933
<212> DNA
<213> Homo sapien

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<400> 64
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60

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62

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<212> DNA
<213> Homo sapien

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64

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<211> 564
<212> DNA
<213> Homo sapien

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65

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<212> DNA
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<211> 1263
<212> DNA
<213> Homo sapien

<400> 70
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<211> 1932
<212> DNA
<213> Homo sapien

<400> 71
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 aacagtcctt ttacaaatgg gacaacaggt tagaggaagt caggcagatt tccagcatca 180
 tagagagtaa aggaccaggg aaggatcagg attcaaggac tgcacccagg ctctgcttcc 240
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 aaatgcaaac aggctgttgg gaggatcaaa tgagatccag gggtgaaaac agcttagttt 360
 actttcagga atttaccac gcggtatata aaggcaaaat attattatag tcagggtgatt 420
 gtagattgag gaaccattt cctcattctg caaattgcaa acctgagggc ccaaagaggg 480
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 gtactgggtg aggaaggggt ggatcctctt ctctcgctgc tctggacca tctatgccga 1740
 agaagaaggc caggagacaa tgaagggcag ggtgtccatc cgtgacagcc gccaggagct 1800

68

ctcgctcatt gtgaccctgt ggaacctcac cctgcaagac gctggggagt actggtgtgg 1860
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 tcctgggctc ta 1932

<210> 72
 <211> 736
 <212> DNA
 <213> Homo sapien

<400> 72
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 aataagagct actccagcct gggcaataag agctactcca gcctgggcaa taagagctac 180
 tccagcctgg gcaataagag ctactccagc ctgggcaata aggcccaaga gctgcgtcat 240
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 cagcgacgac gacacctgc tcacctgagc gccgcaccgc ttcagggacg gagacaggac 600
 cgggcgagcc ctggggcggc ggccgctcct gcactttctc ccctcccca cccggcacct 660
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 cgatcccaca gcctca 736

<210> 73
 <211> 91
 <212> PRT
 <213> Homo sapien

<400> 73

Met Cys Gln Pro Val Ser Ile Ser Glu Lys Ala Met Tyr Pro Asp Tyr
 1 5 10 15

Phe Ala Lys Arg Glu Gln Trp Lys Lys Leu Arg Arg Glu Ser Trp Glu
 20 25 30

Arg Glu Val Lys Gln Leu Gln Glu Glu Thr Pro Pro Gly Gly Pro Leu
 35 40 45

Thr Glu Ala Leu Pro Pro Ala Arg Lys Glu Gly Asp Leu Pro Pro Leu

69

50

55

60

Val Val Val Tyr Cys Asp Gln Thr Pro Gly Ser Gly Pro Cys Arg Lys
 65 70 75 80

Arg Glu Thr His Leu Ser Cys Leu Gln Val Lys
 85 90

<210> 74
 <211> 117
 <212> PRT
 <213> Homo sapien

<400> 74

His Gly Gly Leu His Arg Arg Trp Leu Ser Leu Gly Thr Trp Pro Arg
 1 5 10 15

Val Asp Asn Thr Trp Gly Pro Leu Pro Asn Leu Pro Val Pro Gly Gly
 20 25 30

Ser His Pro Val Pro Pro Ala Arg Met Cys Gln Pro Val Ser Ile Ser
 35 40 45

Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu Gln Trp Lys
 50 55 60

Lys Leu Arg Arg Glu Ser Trp Glu Arg Glu Val Lys Gln Leu Gln Glu
 65 70 75 80

Glu Thr Pro Pro Gly Gly Pro Leu Thr Glu Ala Leu Pro Pro Ala Arg
 85 90 95

Lys Glu Gly Asp Leu Pro Pro Leu Val Val Val Tyr Cys Asp Gln Thr
 100 105 110

Pro Gly Ala Ala Met
 115

<210> 75
 <211> 157
 <212> PRT
 <213> Homo sapien

<400> 75

Met Trp Thr Arg Lys Ala Gly Arg Leu Arg Leu Gly Ser Arg Pro Ala
 1 5 10 15

70

Pro Thr Arg Pro Pro Ser Ser Gln Pro Leu Asn Pro Arg Leu His Arg
20 25 30

Arg Trp Leu Ser Leu Gly Thr Trp Pro Arg Val Asp Asn Thr Trp Gly
35 40 45

Pro Leu Pro Asn Leu Pro Val Pro Gly Gly Ser His Pro Val Pro Pro
50 55 60

Ala Arg Met Cys Gln Pro Val Ser Ile Ser Glu Lys Ala Met Tyr Pro
65 70 75 80

Asp Tyr Phe Ala Lys Arg Glu Gln Trp Lys Lys Leu Arg Arg Glu Ser
85 90 95

Trp Glu Arg Glu Val Lys Gln Leu Gln Glu Glu Thr Pro Pro Gly Gly
100 105 110

Pro Leu Thr Glu Ala Leu Pro Pro Ala Arg Lys Glu Gly Asp Leu Pro
115 120 125

Pro Leu Val Val Val Tyr Cys Asp Gln Thr Pro Gly Ser Gly Pro Cys
130 135 140

Arg Lys Arg Glu Thr His Leu Ser Cys Leu Gln Val Lys
145 150 155

<210> 76
<211> 153
<212> PRT
<213> Homo sapien

<400> 76

Ser Trp Leu Gly Arg Glu Pro Ser Glu Gly Met Trp Thr Arg Lys Ala
1 5 10 15

Gly Arg Leu Arg Leu Gly Ser Arg Pro Ala Pro Thr Arg Pro Pro Ser
20 25 30

Ser Gln Pro Leu Asn Pro Arg Leu His Arg Arg Trp Leu Ser Leu Gly
35 40 45

Thr Trp Pro Arg Val Asp Asn Thr Trp Gly Pro Leu Pro Asn Leu Pro
50 55 60

Val Pro Gly Gly Ser His Pro Val Pro Pro Ala Arg Met Cys Gln Pro
65 70 75 80

71

Val Ser Ile Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg
85 90 95

Glu Gln Trp Lys Lys Leu Arg Arg Glu Ser Trp Glu Arg Glu Val Lys
100 105 110

Gln Leu Gln Glu Glu Thr Pro Pro Gly Gly Pro Leu Thr Glu Ala Leu
115 120 125

Pro Pro Ala Arg Lys Glu Gly Asp Leu Pro Pro Leu Val Val Val Tyr
130 135 140

Cys Asp Gln Thr Pro Gly Ala Ala Met
145 150

<210> 77
<211> 73
<212> PRT
<213> Homo sapien

<400> 77

Met Gly Val Leu Gly Thr Val Arg Val Pro Thr Pro Ser Pro Gly Asn
1 5 10 15

Cys Ile Gly Gln Thr Phe Ala Met Ala Glu Met Lys Val Val Leu Ala
20 25 30

Leu Thr Leu Leu Arg Phe Arg Val Leu Pro Asp His Ala Glu Pro Arg
35 40 45

Arg Lys Leu Glu Leu Ile Val Arg Ala Glu Asp Gly Leu Trp Leu Arg
50 55 60

Val Glu Pro Leu Ser Ala Asp Leu Gln
65 70

<210> 78
<211> 199
<212> PRT
<213> Homo sapien

<400> 78

Glu Val Pro Gly Gly Arg Leu Lys Gly Asp Arg Arg Arg Ala Val Gln
1 5 10 15

Asp Leu Gly Ala Gly Cys Arg Gly Arg Gly Gly Lys Gly Arg Arg

72

20

25

30

Thr Gly Arg Ala Asp Lys Trp Val Gly Pro Leu Glu Val Arg Gly Gln
 35 40 45

Gly Trp Ser Pro Gly Thr Lys Lys Gly Arg Gly Ser Ala Arg Pro Glu
 50 55 60

Glu Trp Glu Glu Met Gly Pro Gly Cys Arg Val Pro Arg Gly Leu Gly
 65 70 75 80

Gln Gly Pro Arg Cys Arg Arg Lys Met Arg Glu Phe Gly Phe Gly Asp
 85 90 95

Leu Val His Pro Gly Pro Val Leu Pro Pro Leu Pro Pro Gln Arg Arg
 100 105 110

Ala Ser Cys Ile Pro Phe Leu Trp Pro Glu Gly Ser Ser Val His Pro
 115 120 125

Ser Gln Ala Leu Ala Ser Ser His Ser Pro Ala Leu Gly Pro Ile Arg
 130 135 140

Leu Gly Arg Met Gly Glu Pro Val Val Ala Pro Gly Arg Gly Lys Gly
 145 150 155 160

Gly Arg Leu Gly Lys Pro Leu Leu Gly Arg Thr Gln Tyr Ser Gly Ser
 165 170 175

Ser Leu Ser Gly Lys Glu Arg Ile Trp Gly Lys Asn Gly Ser Ala Ser
 180 185 190

His Ala Leu Thr Gly Glu Pro
 195

<210> 79
 <211> 132
 <212> PRT
 <213> Homo sapien

<400> 79

Ile Thr Phe Gln Glu His Leu Asn Gly Pro Leu Pro Val Pro Phe Thr
 1 5 10 15

Asn Gly Glu Ile Gln Lys Glu Asn Ser Arg Glu Ala Leu Ala Glu Ala
 20 25 30

73

Ala Leu Glu Ser Pro Arg Pro Asp Leu Val Arg Ile Arg Thr Pro Trp
 35 40 45

Leu Ile Pro Lys Lys Glu Leu Asn Phe His Asn Asp Met Ser Pro Leu
 50 55 60

Glu Glu Ser Arg Tyr Ser Thr Ala Thr Arg Arg Ser Tyr His Pro Ser
 65 70 75 80

Ser Asp Pro Ile Leu Asp Phe Asn Ile Ser Leu Val Met Cys Leu Ser
 85 90 95

Glu Arg Ala Ser Pro Gly Asn Ala Val Ser Lys Arg Ala Pro Gln Met
 100 105 110

Asp Trp Ser Lys Lys Asn Glu Leu Phe Ser Glu Pro Leu Ser Ala Leu
 115 120 125

Leu Pro Leu Gln
 130

<210> 80
 <211> 66
 <212> PRT
 <213> Homo sapien

<400> 80

Ala Ser Asp Ser His Arg Thr Pro Phe Ser Phe Ser Pro Ile Thr Pro
 1 5 10 15

Leu Arg Ser Met Tyr Lys Ser Val Thr Arg Cys Ser Phe Leu Asp Ile
 20 25 30

Met Met Ser Ser Arg Glu Leu Cys Ser Ser Arg Asp Phe Arg Glu Gly
 35 40 45

Glu Cys Val Pro Ser Ser Arg Ser His Glu Arg Arg Leu Trp Leu Pro
 50 55 60

Pro Pro
 65

<210> 81
 <211> 175
 <212> PRT
 <213> Homo sapien

74

<400> 81

Met Val Lys Leu Thr Ala Glu Leu Ile Glu Gln Ala Ala Gln Tyr Thr
 1 5 10 15

Asn Ala Val Arg Asp Arg Glu Leu Asp Leu Arg Gly Tyr Lys Ile Pro
 20 25 30

Val Ile Glu Asn Leu Gly Ala Thr Leu Asp Gln Phe Asp Ala Ile Asp
 35 40 45

Phe Ser Asp Asn Glu Ile Arg Lys Leu Asp Gly Phe Pro Leu Leu Arg
 50 55 60

Arg Leu Lys Thr Leu Leu Val Asn Asn Asn Arg Ile Cys Arg Ile Gly
 65 70 75 80

Glu Gly Leu Asp Gln Ala Leu Pro Cys Leu Thr Glu Leu Ile Leu Thr
 85 90 95

Asn Asn Ser Leu Val Glu Leu Gly Asp Leu Asp Pro Leu Ala Ser Leu
 100 105 110

Lys Ser Leu Thr Tyr Leu Ser Ile Leu Arg Asn Pro Val Thr Asn Lys
 115 120 125

Lys His Tyr Arg Leu Tyr Val Ile Tyr Lys Val Pro Gln Val Arg Val
 130 135 140

Leu Asp Phe Gln Lys Val Lys Leu Lys Val Ser Ser Asn Leu Leu Leu
 145 150 155 160

Val Ser His Tyr Arg Val Val Cys Phe Ser Leu Tyr Phe Cys Tyr
 165 170 175

<210> 82

<211> 79

<212> PRT

<213> Homo sapien

<400> 82

Met Asp Val Ala Ala Glu Val Glu Val Leu Pro Lys Pro Arg Met Arg
 1 5 10 15

Gly Leu Leu Ala Arg Arg Leu Arg Asn His Met Ala Val Ala Phe Val
 20 25 30

Leu Ser Leu Gly Val Ala Ala Leu Tyr Lys Phe Arg Val Ala Asp Gln
35 40 45

Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg Asn Tyr Asp Val Met Lys
50 55 60

Asp Phe Glu Glu Met Arg Lys Ala Gly Ile Phe Gln Ser Val Lys
65 70 75

<210>	83
<211>	88
<212>	PRT
<213>	Homo sapien

<400> 83

Met Leu Glu Arg Arg Gln Cys Asp Gly Cys Val Val Ala Ala Glu Val
1 5 10 15

Glu Val Leu Pro Lys Pro Arg Met Arg Gly Leu Leu Ala Arg Arg Leu
20 25 30

Arg Asn His Met Ala Val Ala Phe Val Leu Ser Leu Gly Val Ala Ala
35 40 45

Leu Tyr Lys Phe Arg Val Ala Asp Gln Arg Lys Lys Ala Tyr Ala Asp
50 55 60

Phe Tyr Arg Asn Tyr Asp Val Met Lys Asp Phe Glu Glu Met Arg Lys
65 70 75 80

Ala Gly Ile Phe Gln Ser Val Lys
85

<210>	84
<211>	93
<212>	PRT
<213>	Homo sapien

<400> 84

Met Leu Glu Arg Arg Ser Val Met Asp Ala Trp Ser Arg Ala Gly Val
1 5 10 15

Thr Thr Met Ala Pro Glu Val Leu Pro Lys Pro Arg Met Arg Gly Leu
20 25 30

Leu Ala Arg Arg Leu Arg Asn His Met Ala Val Ala Phe Val Leu Ser
35 40 45

76

Leu Gly Val Ala Ala Leu Tyr Lys Phe Arg Val Ala Asp Gln Arg Lys
 50 55 60

Lys Ala Tyr Ala Asp Phe Tyr Arg Asn Tyr Asp Val Met Lys Asp Phe
 65 70 75 80

Glu Glu Met Arg Lys Ala Gly Ile Phe Gln Ser Val Lys
 85 90

<210> 85
 <211> 80
 <212> PRT
 <213> Homo sapien
 <400> 85

Met Asp Arg Gly Arg Gly Glu Val Glu Val Leu Pro Lys Pro Arg Met
 1 5 10 15

Arg Gly Leu Leu Ala Arg Arg Leu Arg Asn His Met Ala Val Ala Phe
 20 25 30

Val Leu Ser Leu Gly Val Ala Ala Leu Tyr Lys Phe Arg Val Ala Asp
 35 40 45

Gln Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg Asn Tyr Asp Val Met
 50 55 60

Lys Asp Phe Glu Glu Met Arg Lys Ala Gly Ile Phe Gln Ser Val Lys
 65 70 75 80

<210> 86
 <211> 68
 <212> PRT
 <213> Homo sapien
 <400> 86

Met Trp Ser Arg Pro Arg Phe Leu Ala Arg Arg Leu Arg Asn His Met
 1 5 10 15

Ala Val Ala Phe Val Leu Ser Leu Gly Val Ala Ala Leu Tyr Lys Phe
 20 25 30

Arg Val Ala Asp Gln Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg Asn
 35 40 45

Tyr Asp Val Met Lys Asp Phe Glu Glu Met Arg Lys Ala Gly Ile Phe
 50 55 60

77

Gln Ser Val Lys
65

<210> 87
<211> 53
<212> PRT
<213> Homo sapien

<400> 87

Met Ala Val Ala Phe Val Leu Ser Leu Gly Val Ala Ala Leu Tyr Lys
1 5 10 15

Phe Arg Val Ala Asp Gln Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg
20 25 30

Asn Tyr Asp Val Met Lys Asp Phe Glu Glu Met Arg Lys Ala Gly Ile
35 40 45

Phe Gln Ser Val Lys
50

<210> 88
<211> 72
<212> PRT
<213> Homo sapien

<400> 88

Trp Ile Gly Arg Pro Gly Arg Ser Asn Val Gln Leu Ser Leu Arg Ser
1 5 10 15

Trp Asp Leu Gly Pro Thr Val Trp Pro Phe Ser Leu Gln Ala Val Leu
20 25 30

Gly Leu Lys Phe Arg Val Ala Asp Gln Arg Lys Lys Ala Tyr Ala Asp
35 40 45

Phe Tyr Arg Asn Tyr Asp Val Met Lys Asp Phe Glu Glu Met Arg Lys
50 55 60

Ala Gly Ile Phe Gln Ser Val Lys
65 70

<210> 89
<211> 80
<212> PRT
<213> Homo sapien

78

<400> 89

Met Leu Glu Ala Ala Gln Cys Asp Gly Ser Ala Ala Arg Ala Gly Gln
 1 5 10 15

Met Cys Ser Ser Pro Ser Gly Ser Trp Asp Leu Gly Pro Thr Val Trp
 20 25 30

Pro Phe Ser Leu Gln Ala Val Leu Gly Leu Lys Phe Arg Val Ala Asp
 35 40 45

Gln Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg Asn Tyr Asp Val Met
 50 55 60

Lys Asp Phe Glu Glu Met Arg Lys Ala Gly Ile Phe Gln Ser Val Lys
 65 70 75 80

<210> 90

<211> 174

<212> PRT

<213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (13)..(14)

<223> X=any amino acid

<400> 90

Gln Ile Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Lys
 1 5 10 15

Asn Thr Lys Lys His Lys Lys Lys Arg Gly Gly Arg Pro Thr Lys Tyr
 20 25 30

Pro Pro Gly Gly Asp Ala Gln Thr Ser Asn Pro Pro Phe Gly Lys Arg
 35 40 45

Gly Pro Pro Gln Glu Gly Ala Gln Lys Thr Ala Ala Gly Gly Asn Lys
 50 55 60

Arg Arg Ala Asp Lys Pro Ser Ala Arg Gly Gln Arg Glu Arg Gln Thr
 65 70 75 80

Pro His Arg Arg Gly Gly Asp Arg Pro Gly Ala Pro Thr Pro Thr
 85 90 95

Glu Gln Thr Arg Arg Arg Ala Lys Thr Thr Thr Ala Arg Asp Val Gly
 100 105 110

79

Gln Pro Thr Ala Arg Ser Ala Ala Thr Ala Ala Leu Thr Leu Ser Gly
 115 120 125

Thr Ile Gln Gly Ala Ala Ile Asn Arg Ala His Thr Pro Ala Ser Gln
 130 135 140

Thr Thr Arg Arg Pro Pro His Ala Asp Ala Thr Thr Pro Arg Pro Thr
 145 150 155 160

Asn Tyr Gly Ser Ser Ala Gln Asn Leu Ala Thr Pro Pro His
 165 170

<210> 91
 <211> 101
 <212> PRT
 <213> Homo sapien

<400> 91

Met Asp Arg Gly Arg Gly Glu Val Ser Gly Arg Thr Leu Val Leu Arg
 1 5 10 15

Leu Ala Tyr Val Ser Arg Thr Val Thr Thr Met Ala Pro Glu Val Leu
 20 25 30

Pro Lys Pro Arg Met Arg Gly Leu Leu Ala Arg Arg Leu Arg Asn His
 35 40 45

Met Ala Val Ala Phe Val Leu Ser Leu Gly Val Ala Ala Leu Tyr Lys
 50 55 60

Phe Arg Val Ala Asp Gln Arg Lys Lys Ala Tyr Ala Asp Phe Tyr Arg
 65 70 75 80

Asn Tyr Asp Val Met Lys Asp Phe Glu Glu Met Arg Lys Ala Gly Ile
 85 90 95

Phe Gln Ser Val Lys
 100

<210> 92
 <211> 216
 <212> PRT
 <213> Homo sapien

<400> 92

Met Val Ser Thr Asn Phe Thr Ser Gly Ser Arg Cys His Gly Cys Pro

80

1		5							10					15			
Lys	Ser	Leu	Glu	Thr	Thr	Thr	Ser	Pro	Leu	Pro	Arg	Arg	Trp	Arg	Arg		
		20						25					30				
Pro	Gly	Ala	Val	Trp	Pro	Arg	Lys	Pro	Gly	Asn	Trp	Pro	Thr	Thr	Cys		
		35					40					45					
Arg	Lys	Leu	Arg	Val	Ser	Met	Lys	Ser	Thr	Asn	Thr	Thr	Arg	Asn	Ser		
	50					55					60						
Ser	Lys	Lys	Ser	Trp	Arg	Arg	Ser	Pro	Gly	Leu	Arg	Arg	Ser	His	His		
65					70					75				80			
Tyr	Phe	Lys	Tyr	Cys	Lys	Ile	Ser	Ala	Leu	Ala	Leu	Leu	Lys	Met	Val		
				85					90					95			
Met	His	Ala	Arg	Ser	Gly	Gly	Asn	Leu	Glu	Val	Met	Gly	Leu	Met	Leu		
		100						105					110				
Gly	Lys	Val	Asp	Gly	Glu	Thr	Met	Ile	Ile	Met	Asp	Ser	Phe	Ala	Leu		
		115					120					125					
Pro	Val	Glu	Gly	Thr	Glu	Thr	Arg	Val	Asn	Ala	Gln	Ala	Ala	Ala	Tyr		
	130					135					140						
Glu	Tyr	Met	Ala	Ala	Tyr	Ile	Glu	Asn	Ala	Lys	Gln	Val	Gly	Arg	Leu		
145					150					155					160		
Glu	Asn	Ala	Ile	Gly	Trp	Tyr	His	Ser	His	Pro	Gly	Tyr	Gly	Cys	Trp		
				165					170					175			
Leu	Ser	Gly	Ile	Asp	Val	Ser	Thr	Gln	Met	Leu	Asn	Gln	Gln	Phe	Gln		
			180					185					190				
Glu	Pro	Phe	Val	Ala	Val	Val	Ile	Asp	Pro	Thr	Arg	Thr	Ile	Ser	Ala		
		195					200					205					
Gly	Lys	Ser	Glu	Ser	Trp	Arg	Leu										
	210					215											

<210> 93
 <211> 352
 <212> PRT
 <213> Homo sapien

<400> 93

81

Val	Ser	Trp	Leu	Pro	Gln	Glu	Ser	Arg	Asp	Asp	Asn	Phe	Ser	Ala	Ser	1	5	10	15
Ser	Ala	Met	Ala	Ala	Ser	Gly	Ser	Gly	Met	Ala	Gln	Lys	Thr	Trp	Glu	20	25	30	
Leu	Ala	Asn	Asn	Met	Gln	Glu	Ala	Gln	Ser	Ile	Asp	Glu	Ile	Tyr	Lys	35	40	45	
Tyr	Asp	Lys	Lys	Gln	Gln	Gln	Glu	Ile	Leu	Ala	Ala	Lys	Pro	Trp	Thr	50	55	60	
Lys	Asp	His	His	Tyr	Phe	Lys	Tyr	Cys	Lys	Ile	Ser	Ala	Leu	Ala	Leu	65	70	75	80
Leu	Lys	Met	Val	Met	His	Ala	Arg	Ser	Gly	Gly	Asn	Leu	Glu	Val	Met	85	90	95	
Gly	Leu	Met	Leu	Gly	Lys	Val	Asp	Gly	Glu	Thr	Met	Ile	Ile	Met	Asp	100	105	110	
Ser	Phe	Ala	Leu	Pro	Val	Glu	Gly	Thr	Glu	Thr	Arg	Val	Asn	Ala	Gln	115	120	125	
Ala	Ala	Ala	Tyr	Glu	Tyr	Met	Ala	Ala	Tyr	Ile	Glu	Asn	Ala	Lys	Gln	130	135	140	
Val	Gly	Arg	Leu	Glu	Asn	Ala	Ile	Gly	Trp	Tyr	His	Ser	His	Pro	Gly	145	150	155	160
Tyr	Gly	Cys	Trp	Leu	Ser	Gly	Ile	Asp	Val	Ser	Thr	Gln	Met	Leu	Asn	165	170	175	
Gln	Gln	Phe	Gln	Glu	Pro	Phe	Val	Ala	Val	Val	Ile	Asp	Pro	Thr	Arg	180	185	190	
Thr	Ile	Ser	Ala	Gly	Lys	Val	Asn	Leu	Gly	Ala	Phe	Arg	Thr	Tyr	Pro	195	200	205	
Lys	Gly	Tyr	Lys	Pro	Pro	Asp	Glu	Gly	Pro	Ser	Glu	Tyr	Gln	Thr	Ile	210	215	220	
Pro	Leu	Asn	Lys	Ile	Glu	Asp	Phe	Gly	Val	His	Cys	Lys	Gln	Tyr	Tyr	225	230	235	240

82

Ala Leu Glu Val Ser Tyr Phe Lys Ser Ser Leu Asp Arg Lys Leu Leu
245 250 255

Glu Leu Leu Trp Asn Lys Tyr Trp Val Asn Thr Leu Ser Ser Ser Ser
260 265 270

Leu Leu Thr Asn Ala Asp Tyr Thr Thr Gly Gln Val Phe Asp Leu Ser
275 280 285

Glu Lys Leu Glu Gln Ser Glu Ala Gln Leu Gly Arg Gly Ser Phe Met
290 295 300

Leu Gly Leu Glu Thr His Asp Arg Lys Ser Glu Asp Lys Leu Ala Lys
305 310 315 320

Ala Thr Arg Asp Ser Cys Lys Thr Thr Ile Glu Ala Ile His Gly Leu
325 330 335

Met Ser Gln Val Ile Lys Asp Lys Leu Phe Asn Gln Ile Asn Ile Ser
340 345 350

<210> 94
<211> 72
<212> PRT
<213> Homo sapien

<400> 94

Met Ala Gln Lys Thr Trp Glu Leu Ala Asn Asn Met Gln Glu Ala Gln
1 5 10 15

Ser Ile Asp Glu Ile Tyr Lys Tyr Asp Lys Lys Gln Gln Gln Glu Ile
20 25 30

Leu Ala Ala Lys Pro Trp Thr Lys Lys Asp Lys Gly Arg Ser Gln Asp
35 40 45

Phe Asp Ser Cys Leu Asp Phe Gln His Glu Val Tyr Thr Phe Phe Ser
50 55 60

Phe Trp Leu Lys Ser Gly Lys Ala
65 70

<210> 95
<211> 292
<212> PRT
<213> Homo sapien

<400> 95

83

Gln Ala Val His Phe Ser His His Tyr Phe Lys Tyr Cys Lys Ile Ser
 1 5 10 15
 Ala Leu Ala Leu Leu Lys Met Val Met His Ala Arg Ser Gly Gly Asn
 20 25 30
 Leu Glu Val Met Gly Leu Met Leu Gly Lys Val Asp Gly Glu Thr Met
 35 40 45
 Ile Ile Met Asp Ser Phe Ala Leu Pro Val Glu Gly Thr Glu Thr Arg
 50 55 60
 Val Asn Ala Gln Ala Ala Ala Tyr Glu Tyr Met Ala Ala Tyr Ile Glu
 65 70 75 80
 Asn Ala Lys Gln Val Gly Arg Leu Glu Asn Ala Ile Gly Trp Tyr His
 85 90 95
 Ser His Pro Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp Val Ser Thr
 100 105 110
 Gln Met Leu Asn Gln Gln Phe Gln Glu Pro Phe Val Ala Val Val Ile
 115 120 125
 Asp Pro Thr Arg Thr Ile Ser Ala Gly Lys Val Asn Leu Gly Ala Phe
 130 135 140
 Arg Thr Tyr Pro Lys Gly Tyr Lys Pro Pro Asp Glu Gly Pro Ser Glu
 145 150 155 160
 Tyr Gln Thr Ile Pro Leu Asn Lys Ile Glu Asp Phe Gly Val His Cys
 165 170 175
 Lys Gln Tyr Tyr Ala Leu Glu Val Ser Tyr Phe Lys Ser Ser Leu Asp
 180 185 190
 Arg Lys Leu Leu Glu Leu Leu Trp Asn Lys Tyr Trp Val Asn Thr Leu
 195 200 205
 Ser Ser Ser Ser Leu Leu Thr Asn Ala Asp Tyr Thr Thr Gly Gln Val
 210 215 220
 Phe Asp Leu Ser Glu Lys Leu Glu Gln Ser Glu Ala Gln Leu Gly Arg
 225 230 235 240

84

Gly Ser Phe Met Leu Gly Leu Glu Thr His Asp Arg Lys Ser Glu Asp
 245 250 255

Lys Leu Ala Lys Ala Thr Arg Asp Ser Cys Lys Thr Thr Ile Glu Ala
 260 265 270

Ile His Gly Leu Met Ser Gln Val Ile Lys Asp Lys Leu Phe Asn Gln
 275 280 285

Ile Asn Ile Ser
 290

<210> 96
 <211> 158
 <212> PRT
 <213> Homo sapien

<400> 96

Met Val Ser Thr Asn Phe Thr Ser Gly Ser Arg Cys His Gly Cys Pro
 1 5 10 15

Lys Ser Leu Gly His His Tyr Phe Lys Tyr Cys Lys Ile Ser Ala Leu
 20 25 30

Ala Leu Leu Lys Met Val Met His Ala Arg Ser Gly Gly Asn Leu Glu
 35 40 45

Val Met Gly Leu Met Leu Gly Lys Val Asp Gly Glu Thr Met Ile Ile
 50 55 60

Met Asp Ser Phe Ala Leu Pro Val Glu Gly Thr Glu Thr Arg Val Asn
 65 70 75 80

Ala Gln Ala Ala Ala Tyr Glu Tyr Met Ala Ala Tyr Ile Glu Asn Ala
 85 90 95

Lys Gln Val Gly Arg Leu Glu Asn Ala Ile Gly Trp Tyr His Ser His
 100 105 110

Pro Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp Val Ser Thr Gln Met
 115 120 125

Leu Asn Gln Gln Phe Gln Glu Pro Phe Val Ala Val Val Ile Asp Pro
 130 135 140

Thr Arg Thr Ile Ser Ala Gly Lys Ser Glu Ser Trp Arg Leu
 145 150 155

85

<210> 97
 <211> 295
 <212> PRT
 <213> Homo sapien

<400> 97

Val Ser Trp Leu Pro Gln Glu Ser Ser His His Tyr Phe Lys Tyr Cys
 1 5 10 15

Lys Ile Ser Ala Leu Ala Leu Leu Lys Met Val Met His Ala Arg Ser
 20 25 30

Gly Gly Asn Leu Glu Val Met Gly Leu Met Leu Gly Lys Val Asp Gly
 35 40 45

Glu Thr Met Ile Ile Met Asp Ser Phe Ala Leu Pro Val Glu Gly Thr
 50 55 60

Glu Thr Arg Val Asn Ala Gln Ala Ala Ala Tyr Glu Tyr Met Ala Ala
 65 70 75 80

Tyr Ile Glu Asn Ala Lys Gln Val Gly Arg Leu Glu Asn Ala Ile Gly
 85 90 95

Trp Tyr His Ser His Pro Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp
 100 105 110

Val Ser Thr Gln Met Leu Asn Gln Gln Phe Gln Glu Pro Phe Val Ala
 115 120 125

Val Val Ile Asp Pro Thr Arg Thr Ile Ser Ala Gly Lys Val Asn Leu
 130 135 140

Gly Ala Phe Arg Thr Tyr Pro Lys Gly Tyr Lys Pro Pro Asp Glu Gly
 145 150 155 160

Pro Ser Glu Tyr Gln Thr Ile Pro Leu Asn Lys Ile Glu Asp Phe Gly
 165 170 175

Val His Cys Lys Gln Tyr Tyr Ala Leu Glu Val Ser Tyr Phe Lys Ser
 180 185 190

Ser Leu Asp Arg Lys Leu Leu Glu Leu Leu Trp Asn Lys Tyr Trp Val
 195 200 205

86

Asn Thr Leu Ser Ser Ser Ser Leu Leu Thr Asn Ala Asp Tyr Thr Thr
 210 215 220

Gly Gln Val Phe Asp Leu Ser Glu Lys Leu Glu Gln Ser Glu Ala Gln
 225 230 235 240

Leu Gly Arg Gly Ser Phe Met Leu Gly Leu Glu Thr His Asp Arg Lys
 245 250 255

Ser Glu Asp Lys Leu Ala Lys Ala Thr Arg Asp Ser Cys Lys Thr Thr
 260 265 270

Ile Glu Ala Ile His Gly Leu Met Ser Gln Val Ile Lys Asp Lys Leu
 275 280 285

Phe Asn Gln Ile Asn Ile Ser
 290 295

<210> 98
 <211> 152
 <212> PRT
 <213> Homo sapien

<400> 98

Met Lys Ser Thr Asn Thr Thr Arg Asn Ser Ser Lys Lys Ser Trp Arg
 1 5 10 15

Arg Ser Pro Gly Leu Arg Arg Ser His His Tyr Phe Lys Tyr Cys Lys
 20 25 30

Ile Ser Ala Leu Ala Leu Leu Lys Met Val Met His Ala Arg Ser Gly
 35 40 45

Gly Asn Leu Glu Val Met Gly Leu Met Leu Gly Lys Val Asp Gly Glu
 50 55 60

Thr Met Ile Ile Met Asp Ser Phe Ala Leu Pro Val Glu Gly Thr Glu
 65 70 75 80

Thr Arg Val Asn Ala Gln Ala Ala Ala Tyr Glu Tyr Met Ala Ala Tyr
 85 90 95

Ile Glu Asn Ala Lys Gln Val Gly Arg Leu Glu Asn Ala Ile Gly Trp
 100 105 110

Tyr His Ser His Pro Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp Val
 115 120 125

87

Ser Thr Gln Met Leu Asn Gln Gln Phe Gln Glu Pro Phe Val Ala Val
 130 135 140

Val Val Thr Met Gly Lys Ala Ala
 145 150

<210> 99
 <211> 211
 <212> PRT
 <213> Homo sapien

<400> 99

Glu Phe Val Pro Val Val Arg Arg Val Lys Ala His Thr Arg Lys Pro
 1 5 10 15

Ser Glu Val Lys Leu Arg Leu Gly Cys Arg Asp Asp Asn Phe Ser Ala
 20 25 30

Ser Ser Ala Met Ala Ala Ser Gly Ser Gly Met Ala Gln Lys Thr Trp
 35 40 45

Glu Leu Ala Asn Asn Met Gln Glu Ala Gln Ser Ile Asp Glu Ile Tyr
 50 55 60

Lys Tyr Asp Lys Lys Gln Gln Gln Glu Ile Leu Ala Ala Lys Pro Trp
 65 70 75 80

Thr Lys Asp His His Tyr Phe Lys Tyr Cys Lys Ile Ser Ala Leu Ala
 85 90 95

Leu Leu Lys Met Val Met His Ala Arg Ser Gly Gly Asn Leu Glu Val
 100 105 110

Met Gly Leu Met Leu Gly Lys Val Asp Gly Glu Thr Met Ile Ile Met
 115 120 125

Asp Ser Phe Ala Leu Pro Val Glu Gly Thr Glu Thr Arg Val Asn Ala
 130 135 140

Gln Ala Ala Ala Tyr Glu Tyr Met Ala Ala Tyr Ile Glu Asn Ala Lys
 145 150 155 160

Gln Val Gly Arg Leu Glu Asn Ala Ile Gly Trp Tyr His Ser His Pro
 165 170 175

88

Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp Val Ser Thr Gln Met Leu
 180 185 190

Asn Gln Gln Phe Gln Glu Pro Phe Val Ala Val Val Val Thr Met Gly
 195 200 205

Lys Ala Ala
 210

<210> 100
 <211> 149
 <212> PRT
 <213> Homo sapien

<400> 100

Leu Arg Arg Ser Phe Ile Arg Arg Phe Val Ala Leu Trp Val Cys Pro
 1 5 10 15

Lys Gly Ala Asn Ile Pro Leu Asn Lys Ile Glu Asp Phe Gly Val His
 20 25 30

Cys Lys Gln Tyr Tyr Ala Leu Glu Val Ser Tyr Phe Lys Ser Ser Leu
 35 40 45

Asp Arg Lys Leu Leu Glu Leu Leu Trp Asn Lys Tyr Trp Val Asn Thr
 50 55 60

Leu Ser Ser Ser Ser Leu Leu Thr Asn Ala Asp Tyr Thr Thr Gly Gln
 65 70 75 80

Val Phe Asp Leu Ser Glu Lys Leu Glu Gln Ser Glu Ala Gln Leu Gly
 85 90 95

Arg Gly Ser Phe Met Leu Gly Leu Glu Thr His Asp Arg Lys Ser Glu
 100 105 110

Asp Lys Leu Ala Lys Ala Thr Arg Asp Ser Cys Lys Thr Thr Ile Glu
 115 120 125

Ala Ile His Gly Leu Met Ser Gln Val Ile Lys Asp Lys Leu Phe Asn
 130 135 140

Gln Ile Asn Ile Ser
 145

<210> 101
 <211> 199

89

<212> PRT

<213> Homo sapien

<400> 101

Met Ser Ser Gly Asn Ala Lys Ile Gly His Pro Ala Pro Asn Phe Lys
 1 5 10 15

Ala Thr Ala Val Met Pro Asp Gly Gln Phe Lys Asp Ile Ser Leu Ser
 20 25 30

Asp Tyr Lys Gly Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe
 35 40 45

Thr Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu
 50 55 60

Glu Phe Lys Lys Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser
 65 70 75 80

His Phe Cys His Leu Ala Trp Val Asn Thr Pro Lys Lys Gln Gly Gly
 85 90 95

Leu Gly Pro Met Asn Ile Pro Leu Val Ser Asp Pro Lys Arg Thr Ile
 100 105 110

Ala Gln Asp Tyr Gly Val Leu Lys Ala Asp Glu Gly Ile Ser Phe Arg
 115 120 125

Gly Leu Phe Ile Ile Asp Asp Lys Gly Ile Leu Arg Gln Ile Thr Val
 130 135 140

Asn Asp Leu Pro Val Gly Arg Ser Val Asp Glu Thr Leu Arg Leu Val
 145 150 155 160

Gln Ala Phe Gln Phe Thr Asp Lys His Gly Glu Val Cys Pro Ala Gly
 165 170 175

Trp Lys Pro Gly Ser Asp Thr Ile Lys Pro Asp Val Gln Lys Ser Lys
 180 185 190

Glu Tyr Phe Ser Lys Gln Lys
 195

<210> 102

<211> 49

<212> PRT

<213> Homo sapien

90

<400> 102

Ser Pro His Val Gln Pro Pro Asp Trp Gly Thr Gly Thr Gln Pro Glu
 1 5 10 15

Ser Ala Ser Cys Val Leu Gln Ala Gly Ala Glu Ile Ser Thr Val Asn
 20 25 30

Pro Glu Gln Tyr Ser Lys Arg Phe Asn Glu Phe Met Ser Asn Ile Leu
 35 40 45

Thr

<210> 103

<211> 132

<212> PRT

<213> Homo sapien

<400> 103

Thr Thr Leu Arg Ala Leu Ala Leu Asn Leu Trp Pro Pro Lys Ser Arg
 1 5 10 15

Ser Leu Ile Ser Ser Trp Gln Ser Cys Gly Gln Glu Val Leu Lys Gly
 20 25 30

Lys Thr His Ser Asp Asn Cys Ser Pro Ile Tyr Gln Pro Ser Ala Gly
 35 40 45

Val Ser Asp Arg Gly Pro Leu Pro Pro Leu Glu Cys Ala Thr Tyr Glu
 50 55 60

Glu Cys Pro Met Gly Lys Arg Arg Leu Ser Cys Pro Leu Ala Ala Cys
 65 70 75 80

Ala Ser Ile Pro Gly Gln Lys Phe Pro Gln Glu Pro Leu Ala Leu Ala
 85 90 95

Gln Ser His Cys Glu Arg Arg Trp Glu Pro Thr Pro Leu Gly Glu Gly
 100 105 110

Ala Val Leu Leu Gly Thr Ser Gln His Gln Val Arg Ser Leu Lys Leu
 115 120 125

Lys Asn Val Asn
 130

91

<210> 104
 <211> 71
 <212> PRT
 <213> Homo sapien

<400> 104

Met Arg Ser Arg Asn Phe Ala Gly Gly Gln Arg Gly Trp Arg Cys Asp
 1 5 10 15

Asn Cys Arg Arg Pro Gly Gly Glu Pro Ser Pro Glu Gly Thr Thr Gly
 20 25 30

Gln Ser Tyr Asn Gln Tyr Ser Gln Arg Tyr His Gln Arg Thr Asn Thr
 35 40 45

Asn Val Asn Cys Pro Ile Glu Cys Phe Met Pro Leu Asp Val Gln Ala
 50 55 60

Asp Arg Glu Asp Ser Arg Glu
 65 70

<210> 105
 <211> 177
 <212> PRT
 <213> Homo sapien

<400> 105

Met Lys Val Phe Cys Asn Met Glu Thr Gly Glu Thr Cys Val Tyr Pro
 1 5 10 15

Asn Pro Ala Asn Val Pro Lys Lys Asn Trp Trp Ser Ser Lys Ser Lys
 20 25 30

Glu Lys Lys His Ile Trp Phe Gly Glu Thr Ile Asn Gly Gly Phe His
 35 40 45

Phe Ser Tyr Gly Asp Asp Asn Leu Ala Pro Asn Thr Ala Asn Val Gln
 50 55 60

Met Thr Phe Leu Arg Leu Leu Ser Thr Glu Gly Ser Gln Asn Ile Thr
 65 70 75 80

Tyr His Cys Lys Asn Ser Ile Ala Tyr Leu Asp Glu Ala Ala Gly Asn
 85 90 95

Leu Lys Lys Ala Leu Leu Ile Gln Gly Ser Asn Asp Val Glu Ile Arg
 100 105 110

92

Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Ala Leu Lys Asp Gly Cys
 115 120 125

Thr Lys His Thr Gly Lys Trp Gly Lys Thr Val Ile Glu Tyr Arg Ser
 130 135 140

Gln Lys Thr Ser Arg Leu Pro Ile Ile Asp Ile Ala Pro Met Asp Ile
 145 150 155 160

Gly Gly Pro Glu Gln Glu Phe Gly Val Asp Ile Gly Pro Val Cys Phe
 165 170 175

Leu

<210> 106
 <211> 175
 <212> PRT
 <213> Homo sapien

<400> 106

Met Asn Ser Ile Ala Ser Val Arg Asp Thr His Phe Pro Gly Pro Asp
 1 5 10 15

Leu Ile Gly Ile Ser Val Ala Thr Asp Ser Ile Cys Glu Leu Ile Gln
 20 25 30

Tyr Ile Thr Arg Tyr Ile Ala Ser Leu Lys Gln Arg Tyr Thr Gln Ser
 35 40 45

Asn Gly Arg Arg Pro Phe Gly Ile Ser Ala Leu Ile Val Gly Phe Asp
 50 55 60

Phe Asp Gly Thr Pro Arg Leu Tyr Gln Thr Asp Pro Ser Gly Thr Tyr
 65 70 75 80

His Ala Trp Lys Ala Asn Ala Ile Gly Arg Gly Ala Lys Ser Val Arg
 85 90 95

Glu Phe Leu Glu Lys Asn Tyr Thr Asp Glu Ala Ile Glu Thr Asp Asp
 100 105 110

Leu Thr Ile Lys Leu Val Ile Lys Ala Leu Leu Glu Val Val Gln Ser
 115 120 125

93

Gly Gly Lys Asn Ile Glu Leu Ala Val Met Arg Arg Asp Gln Ser Leu
 130 135 140

Lys Ile Leu Asn Pro Glu Glu Ile Glu Lys Tyr Val Ala Glu Ile Glu
 145 150 155 160

Lys Glu Lys Glu Glu Asn Glu Lys Lys Lys Gln Lys Lys Ala Ser
 165 170 175

<210> 107

<211> 501

<212> PRT

<213> Homo sapien

<400> 107

Met Trp Pro Ser Glu Ser Thr Trp Gly Ser Lys Phe Gln Ile Leu Ala
 1 5 10 15

Ser Leu Val Pro Gly Arg Ala Tyr Lys Ser Arg Ala Ser Pro Phe Val
 20 25 30

Thr Cys Ile Phe Phe Leu Pro Leu Cys Thr Leu Cys Leu Ser Leu Pro
 35 40 45

Leu Ser Leu Phe Leu Cys Leu Leu Leu Trp Leu Ser Ser Pro Ser Ser
 50 55 60

Leu Arg Ser Gln Asp Arg His Asp Gly Val Pro Ser His Ser Ser Arg
 65 70 75 80

Leu Ser Gln Leu Gly Ser Val Ser Gln Gly Pro Tyr Ser Ser Ala Pro
 85 90 95

Pro Leu Ser His Thr Pro Ser Ser Asp Phe Gln Pro Pro Tyr Phe Pro
 100 105 110

Pro Pro Tyr Gln Pro Leu Pro Tyr His Gln Ser Gln Asp Pro Tyr Ser
 115 120 125

His Val Asn Asp Pro Tyr Ser Leu Asn Pro Leu His Gln Pro Gln Gln
 130 135 140

His Pro Trp Gly Gln Arg Gln Arg Gln Glu Val Gly Ser Glu Ala Gly
 145 150 155 160

Ser Leu Leu Pro Gln Pro Arg Ala Ala Leu Pro Gln Leu Ser Gly Leu
 165 170 175

Asp Pro Arg Arg Asp Tyr His Ser Val Arg Arg Pro Asp Val Leu Leu
 180 185 190

His Ser Ala His His Gly Leu Asp Ala Gly Met Gly Asp Ser Leu Ser
 195 200 205

Leu His Gly Leu Gly His Pro Gly Met Glu Asp Val Gln Ser Val Glu
 210 215 220

Asp Ala Asn Asn Ser Gly Met Asn Leu Leu Asp Gln Ser Val Ile Lys
 225 230 235 240

Lys Val Pro Val Pro Pro Lys Ser Val Thr Ser Leu Met Met Asn Lys
 245 250 255

Asp Gly Phe Leu Gly Gly Met Ser Val Asn Thr Gly Glu Val Phe Cys
 260 265 270

Ser Val Pro Gly Arg Leu Ser Leu Leu Ser Ser Thr Ser Lys Tyr Lys
 275 280 285

Val Thr Val Gly Glu Val Gln Arg Arg Leu Ser Pro Pro Glu Cys Leu
 290 295 300

Asn Ala Ser Leu Leu Gly Gly Val Leu Arg Arg Ala Lys Ser Lys Asn
 305 310 315 320

Gly Gly Arg Ser Leu Arg Glu Arg Leu Glu Lys Ile Gly Leu Asn Leu
 325 330 335

Pro Ala Gly Arg Arg Lys Ala Ala Asn Val Thr Leu Leu Thr Ser Leu
 340 345 350

Val Glu Gly Glu Ala Val His Leu Ala Arg Asp Phe Gly Tyr Ile Cys
 355 360 365

Glu Thr Glu Phe Pro Ala Lys Ala Val Ser Glu Tyr Leu Asn Arg Gln
 370 375 380

His Thr Asp Pro Ser Asp Leu His Ser Arg Lys Asn Met Leu Leu Ala
 385 390 395 400

Thr Lys Gln Leu Cys Lys Glu Phe Thr Asp Leu Leu Ala Gln Asp Arg
 405 410 415

95

Thr Pro Ile Gly Asn Ser Arg Pro Ser Pro Ile Leu Glu Pro Gly Ile
 420 425 430

Gln Ser Cys Leu Thr His Phe Ser Leu Ile Thr His Gly Phe Gly Ala
 435 440 445

Pro Ala Ile Cys Ala Ala Leu Thr Ala Leu Gln Asn Tyr Leu Thr Glu
 450 455 460

Ala Leu Lys Gly Met Asp Lys Met Phe Leu Asn Asn Thr Thr Thr Asn
 465 470 475 480

Arg His Thr Ser Gly Glu Gly Pro Gly Ser Lys Thr Gly Asp Lys Glu
 485 490 495

Glu Lys His Arg Lys
 500

<210> 108
 <211> 458
 <212> PRT
 <213> Homo sapien

<400> 108

Met Leu Trp Lys Leu Val Glu Asn Val Lys Tyr Glu Asp Ile Tyr Glu
 1 5 10 15

Met Leu Val His Thr Tyr Ser Ser Met Asp Arg His Asp Gly Val Pro
 20 25 30

Ser His Ser Ser Arg Leu Ser Gln Leu Gly Ser Val Ser Gln Gly Pro
 35 40 45

Tyr Ser Ser Ala Pro Pro Leu Ser His Thr Pro Ser Ser Asp Phe Gln
 50 55 60

Pro Pro Tyr Phe Pro Pro Pro Tyr Gln Pro Leu Pro Tyr His Gln Ser
 65 70 75 80

Gln Asp Pro Tyr Ser His Val Asn Asp Pro Tyr Ser Leu Asn Pro Leu
 85 90 95

His Gln Pro Gln Gln His Pro Trp Gly Gln Arg Gln Arg Gln Glu Val
 100 105 110

Gly Ser Glu Ala Gly Ser Leu Leu Pro Gln Pro Arg Ala Ala Leu Pro

96

115

120

125

Gln Leu Ser Gly Leu Asp Pro Arg Arg Asp Tyr His Ser Val Arg Arg
 130 135 140

Pro Asp Val Leu Leu His Ser Ala His His Gly Leu Asp Ala Gly Met
 145 150 155 160

Gly Asp Ser Leu Ser Leu His Gly Leu Gly His Pro Gly Met Glu Asp
 165 170 175

Val Gln Ser Val Glu Asp Ala Asn Asn Ser Gly Met Asn Leu Leu Asp
 180 185 190

Gln Ser Val Ile Lys Lys Val Pro Val Pro Pro Lys Ser Val Thr Ser
 195 200 205

Leu Met Met Asn Lys Asp Gly Phe Leu Gly Gly Met Ser Val Asn Thr
 210 215 220

Gly Glu Val Phe Cys Ser Val Pro Gly Arg Leu Ser Leu Leu Ser Ser
 225 230 235 240

Thr Ser Lys Tyr Lys Val Thr Val Gly Glu Val Gln Arg Arg Leu Ser
 245 250 255

Pro Pro Glu Cys Leu Asn Ala Ser Leu Leu Gly Gly Val Leu Arg Arg
 260 265 270

Ala Lys Ser Lys Asn Gly Gly Arg Ser Leu Arg Glu Arg Leu Glu Lys
 275 280 285

Ile Gly Leu Asn Leu Pro Ala Gly Arg Arg Lys Ala Ala Asn Val Thr
 290 295 300

Leu Leu Thr Ser Leu Val Glu Gly Glu Ala Val His Leu Ala Arg Asp
 305 310 315 320

Phe Gly Tyr Ile Cys Glu Thr Glu Phe Pro Ala Lys Ala Val Ser Glu
 325 330 335

Tyr Leu Asn Arg Gln His Thr Asp Pro Ser Asp Leu His Ser Arg Lys
 340 345 350

Asn Met Leu Leu Ala Thr Lys Gln Leu Cys Lys Glu Phe Thr Asp Leu
 355 360 365

Leu Ala Gln Asp Arg Thr Pro Ile Gly Asn Ser Arg Pro Ser Pro Ile
 370 375 380

Leu Glu Pro Gly Ile Gln Ser Cys Leu Thr His Phe Ser Leu Ile Thr
 385 390 395 400

His Gly Phe Gly Ala Pro Ala Ile Cys Ala Ala Leu Thr Ala Leu Gln
 405 410 415

Asn Tyr Leu Thr Glu Ala Leu Lys Gly Met Asp Lys Met Phe Leu Asn
 420 425 430

Asn Thr Thr Thr Asn Arg His Thr Ser Gly Glu Gly Pro Gly Ser Lys
 435 440 445

Thr Gly Asp Lys Glu Glu Lys His Arg Lys
 450 455

<210> 109

<211> 469

<212> PRT

<213> Homo sapien

<400> 109

Met His Ser Pro Pro Arg Asp Gln Ala Ala Ile Met Leu Trp Lys Leu
 1 5 10 15

Val Glu Asn Val Lys Tyr Glu Asp Ile Tyr Glu Met Leu Val His Thr
 20 25 30

Tyr Ser Ser Met Asp Arg His Asp Gly Val Pro Ser His Ser Ser Arg
 35 40 45

Leu Ser Gln Leu Gly Ser Val Ser Gln Gly Pro Tyr Ser Ser Ala Pro
 50 55 60

Pro Leu Ser His Thr Pro Ser Ser Asp Phe Gln Pro Pro Tyr Phe Pro
 65 70 75 80

Pro Pro Tyr Gln Pro Leu Pro Tyr His Gln Ser Gln Asp Pro Tyr Ser
 85 90 95

His Val Asn Asp Pro Tyr Ser Leu Asn Pro Leu His Gln Pro Gln Gln
 100 105 110

98

His Pro Trp Gly Gln Arg Gln Arg Gln Glu Val Gly Ser Glu Ala Gly
 115 120 125

Ser Leu Leu Pro Gln Pro Arg Ala Ala Leu Pro Gln Leu Ser Gly Leu
 130 135 140

Asp Pro Arg Arg Asp Tyr His Ser Val Arg Arg Pro Asp Val Leu Leu
 145 150 155 160

His Ser Ala His His Gly Leu Asp Ala Gly Met Gly Asp Ser Leu Ser
 165 170 175

Leu His Gly Leu Gly His Pro Gly Met Glu Asp Val Gln Ser Val Glu
 180 185 190

Asp Ala Asn Asn Ser Gly Met Asn Leu Leu Asp Gln Ser Val Ile Lys
 195 200 205

Lys Val Pro Val Pro Pro Lys Ser Val Thr Ser Leu Met Met Asn Lys
 210 215 220

Asp Gly Phe Leu Gly Gly Met Ser Val Asn Thr Gly Glu Val Phe Cys
 225 230 235 240

Ser Val Pro Gly Arg Leu Ser Leu Leu Ser Ser Thr Ser Lys Tyr Lys
 245 250 255

Val Thr Val Gly Glu Val Gln Arg Arg Leu Ser Pro Pro Glu Cys Leu
 260 265 270

Asn Ala Ser Leu Leu Gly Gly Val Leu Arg Arg Ala Lys Ser Lys Asn
 275 280 285

Gly Gly Arg Ser Leu Arg Glu Arg Leu Glu Lys Ile Gly Leu Asn Leu
 290 295 300

Pro Ala Gly Arg Arg Lys Ala Ala Asn Val Thr Leu Leu Thr Ser Leu
 305 310 315 320

Val Glu Gly Glu Ala Val His Leu Ala Arg Asp Phe Gly Tyr Ile Cys
 325 330 335

Glu Thr Glu Phe Pro Ala Lys Ala Val Ser Glu Tyr Leu Asn Arg Gln
 340 345 350

His Thr Asp Pro Ser Asp Leu His Ser Arg Lys Asn Met Leu Leu Ala

99

355

360

365

Thr Lys Gln Leu Cys Lys Glu Phe Thr Asp Leu Leu Ala Gln Asp Arg
 370 375 380

Thr Pro Ile Gly Asn Ser Arg Pro Ser Pro Ile Leu Glu Pro Gly Ile
 385 390 395 400

Gln Ser Cys Leu Thr His Phe Ser Leu Ile Thr His Gly Phe Gly Ala
 405 410 415

Pro Ala Ile Cys Ala Ala Leu Thr Ala Leu Gln Asn Tyr Leu Thr Glu
 420 425 430

Ala Leu Lys Gly Met Asp Lys Met Phe Leu Asn Asn Thr Thr Thr Asn
 435 440 445

Arg His Thr Ser Gly Glu Gly Pro Gly Ser Lys Thr Gly Asp Lys Glu
 450 455 460

Glu Lys His Arg Lys
 465

<210> 110
 <211> 201
 <212> PRT
 <213> Homo sapien

<400> 110

Met Ala His Ala Met Glu Asn Ser Trp Thr Ile Ser Lys Glu Tyr His
 1 5 10 15

Ile Asp Glu Glu Val Gly Phe Ala Leu Pro Asn Pro Gln Glu Asn Leu
 20 25 30

Pro Asp Phe Tyr Asn Asp Trp Met Phe Ile Ala Lys His Leu Pro Asp
 35 40 45

Leu Ile Glu Ser Gly Gln Leu Arg Glu Arg Val Glu Lys Leu Asn Met
 50 55 60

Leu Ser Ile Asp His Leu Thr Asp His Lys Ser Gln Arg Leu Ala Arg
 65 70 75 80

Leu Val Leu Gly Cys Ile Thr Met Ala Tyr Val Trp Gly Lys Gly His
 85 90 95

100

Gly Asp Val Arg Lys Val Leu Pro Arg Asn Ile Ala Val Pro Tyr Cys
 100 105 110

Gln Leu Ser Lys Lys Leu Glu Leu Pro Pro Ile Leu Val Tyr Ala Asp
 115 120 125

Cys Val Leu Ala Asn Trp Lys Lys Lys Asp Pro Asn Lys Pro Leu Thr
 130 135 140

Tyr Glu Asn Met Asp Val Leu Phe Ser Phe Arg Asp Gly Asp Cys Ser
 145 150 155 160

Lys Gly Phe Phe Leu Val Ser Leu Leu Val Glu Ile Ala Ala Ala Ser
 165 170 175

Ala Ile Lys Val Arg Leu Ser Ser Leu Gln Asn Leu Tyr Val Asn Leu
 180 185 190

Arg Lys Gln Ser Asn His Phe Gly Ala
 195 200

<210> 111
 <211> 133
 <212> PRT
 <213> Homo sapien

<400> 111

Met Asp Arg His Ser Ser Tyr Ile Phe Ile Trp Leu Gln Leu Glu Leu
 1 5 10 15

Cys Ala Met Ala Val Leu Leu Thr Lys Gly Glu Ile Arg Cys Tyr Cys
 20 25 30

Asp Ala Ala His Cys Val Ala Thr Gly Tyr Met Cys Lys Ser Glu Leu
 35 40 45

Ser Ala Cys Phe Ser Arg Leu Leu Asp Pro Gln Asn Ser Asn Ser Pro
 50 55 60

Leu Thr His Gly Cys Leu Asp Ser Leu Ala Ser Thr Thr Asp Ile Cys
 65 70 75 80

Gln Ala Lys Gln Ala Arg Asn His Ser Gly Thr Thr Ile Pro Thr Leu
 85 90 95

Glu Cys Cys His Glu Asp Met Cys Asn Tyr Arg Gly Leu His Asp Val

101

100	105	110
Leu Ser Pro Pro Arg Gly Glu Ala Ser Gly Arg Trp Lys Pro Phe Leu		
115	120	125
Thr Arg Met Pro Ala		
130		
<210> 112		
<211> 157		
<212> PRT		
<213> Homo sapien		
<400> 112		
Ile Ser Leu Gly Gly Val Ser Met Glu Phe Asp His Phe Leu Cys Thr		
1	5	10
Pro Leu Gly Gln Gly Asn Arg Tyr Gln His Asp Gly Ser Arg Asn Leu		
20	25	30
Ile Thr Lys Val Gln Glu Leu Thr Ser Ser Lys Glu Leu Trp Phe Arg		
35	40	45
Ala Ala Val Ile Ala Val Pro Ile Ala Gly Gly Leu Ile Leu Val Leu		
50	55	60
Leu Ile Met Leu Ala Leu Arg Met Leu Arg Ser Glu Asn Lys Arg Leu		
65	70	75
Gln Asp Gln Arg Gln Gln Met Leu Ser Arg Leu His Tyr Ser Phe His		
85	90	95
Gly His His Ser Lys Lys Gly Gln Val Ala Lys Leu Asp Leu Glu Cys		
100	105	110
Met Val Pro Val Ser Gly His Glu Asn Cys Cys Leu Thr Cys Asp Lys		
115	120	125
Met Arg Gln Ala Asp Leu Ser Asn Asp Lys Ile Leu Ser Leu Val His		
130	135	140
Trp Gly Met Tyr Ser Gly His Gly Lys Leu Glu Phe Val		
145	150	155
<210> 113		
<211> 121		
<212> PRT		

102

<213> Homo sapien

<400> 113

Met Asp Arg His Ser Ser Tyr Ile Phe Ile Trp Leu Gln Leu Glu Leu
 1 5 10 15

Cys Ala Met Ala Val Leu Leu Thr Lys Gly Glu Ile Arg Cys Tyr Cys
 20 25 30

Asp Ala Ala His Cys Val Ala Thr Gly Tyr Met Cys Lys Ser Glu Leu
 35 40 45

Ser Ala Cys Phe Ser Arg Leu Leu Asp Pro Gln Asn Ser Asn Ser Pro
 50 55 60

Leu Thr His Gly Cys Leu Asp Ser Leu Ala Ser Thr Thr Asp Ile Cys
 65 70 75 80

Gln Ala Lys Gln Ala Arg Asn His Ser Gly Thr Thr Ile Pro Thr Leu
 85 90 95

Glu Cys Cys His Glu Asp Lys Glu Thr Gly Ile Ser Met Met Val Ala
 100 105 110

Glu Thr Leu Ser Pro Arg Cys Arg Ser
 115 120

<210> 114

<211> 149

<212> PRT

<213> Homo sapien

<400> 114

Met Arg Leu Met Glu Gly Asp Val Asn Ser Thr Glu Val Leu Ile Ser
 1 5 10 15

Ala Arg Ser Tyr Leu Cys Thr Leu Pro Pro Ala Leu Leu Ser Arg Glu
 20 25 30

Ile Leu Met Ala Asp Ser Glu Ala Leu Pro Ser Leu Ala Gly Asp Pro
 35 40 45

Val Ala Val Glu Ala Leu Leu Arg Ala Val Phe Gly Val Val Val Asp
 50 55 60

Glu Ala Ile Gln Lys Gly Thr Ser Val Ser Gln Lys Val Cys Glu Trp
 65 70 75 80

103

Lys Glu Pro Glu Glu Leu Lys Gln Leu Leu Asp Leu Glu Leu Arg Ser
85 90 95

Gln Gly Glu Ser Gln Lys Gln Ile Leu Glu Arg Cys Arg Ala Val Ile
100 105 110

Arg Tyr Ser Val Lys Thr Gly His Pro Arg Phe Phe Asn Gln Leu Phe
115 120 125

Ser Gly Leu Asp Pro His Ala Leu Ala Gly Arg Ile Ile Thr Glu Ser
130 135 140

Leu Asn Thr Ser Gln
145

<210> 115
<211> 204
<212> PRT
<213> Homo sapien

<400> 115

Gly Pro Val Trp Ala Val Pro Pro His Leu Ser Phe Leu Val Val Leu
1 5 10 15

Ser Pro Gly Arg Tyr Thr Tyr Glu Ile Ala Pro Val Phe Val Leu Met
20 25 30

Glu Glu Glu Val Leu Arg Lys Leu Arg Ala Leu Val Gly Trp Ser Ser
35 40 45

Gly Asp Gly Ile Phe Cys Pro Gly Gly Ser Ile Ser Asn Met Tyr Ala
50 55 60

Val Asn Leu Ala Arg Tyr Gln Arg Tyr Pro Asp Cys Lys Gln Arg Gly
65 70 75 80

Leu Arg Thr Leu Pro Pro Leu Ala Leu Phe Thr Ser Lys Glu Val Gly
85 90 95

Lys Arg His Arg Pro Asn Pro Gly Leu Leu Ile Leu Ile Ser Ser Gln
100 105 110

Leu Ser Arg Asp Leu Pro Gly Leu Leu Pro Ala Leu Pro Thr Ser Ser
115 120 125

104

Lys Ala Ser Leu Pro Pro Gly Gly Cys Ala Ser Phe Gln Ser Arg Arg
 130 135 140

Ser Ser Asn Cys Ser Cys Ser His Cys Leu Leu Phe Gly Gly Arg Gly
 145 150 155 160

Gly Ala Val Ser Ala Val Asp Thr Val His Thr Leu Pro Thr Gln Glu
 165 170 175

Cys Gly Leu Trp Thr Ser Ser Ile Gly Met Thr Trp Gly Leu Leu Glu
 180 185 190

Met Gln Asn Leu Ala Gly His Gly Asp Ser Arg Leu
 195 200

<210> 116
 <211> 194
 <212> PRT
 <213> Homo sapien

<400> 116

Met Gln Arg Pro Gly Trp Trp Lys Gly Glu Glu Asn Trp Ala Gly Gln
 1 5 10 15

Ile Ser Gly Trp Gly Leu Trp Arg Trp Arg Gly Gln Gly Trp Ser Pro
 20 25 30

Gly Thr Lys Lys Gly Arg Gly Ser Ala Arg Pro Glu Glu Trp Glu Glu
 35 40 45

Met Gly Pro Gly Cys Arg Val Pro Arg Gly Leu Gly Gln Gly Pro Arg
 50 55 60

Cys Arg Arg Lys Met Arg Glu Phe Gly Phe Gly Asp Leu Val His Pro
 65 70 75 80

Gly Pro Val Leu Pro Pro Leu Pro Pro Gln Arg Arg Ala Ser Cys Ile
 85 90 95

Pro Phe Leu Trp Pro Glu Gly Ser Ser Val His Pro Ser Gln Ala Leu
 100 105 110

Ala Ser Ser His Ser Pro Ala Leu Gly Pro Ile Arg Leu Gly Arg Met
 115 120 125

Gly Glu Pro Val Val Ala Pro Gly Arg Gly Lys Gly Gly Arg Leu Gly
 130 135 140

105

Lys Pro Leu Leu Gly Arg Thr Gln Tyr Ser Gly Ser Ser Leu Ser Gly
 145 150 155 160

Lys Glu Arg Ile Cys Val Thr Arg Ser Tyr Arg Gly Thr Leu Arg Gly
 165 170 175

Leu Arg Gly Arg Ala Trp Ser Pro Pro Arg Gly Lys Glu Lys Phe Phe
 180 185 190

Glu Ser

<210> 117
 <211> 472
 <212> PRT
 <213> Homo sapien

<400> 117

Met Ser Asp Thr Ser Glu Ser Gly Ala Gly Leu Thr Arg Phe Gln Ala
 1 5 10 15

Glu Ala Ser Glu Lys Asp Ser Ser Ser Met Met Gln Thr Leu Leu Thr
 20 25 30

Val Thr Gln Asn Val Glu Val Pro Glu Thr Pro Lys Ala Ser Lys Ala
 35 40 45

Leu Glu Val Ser Glu Asp Val Lys Val Ser Lys Ala Ser Gly Val Ser
 50 55 60

Lys Ala Thr Glu Val Ser Lys Thr Pro Glu Ala Arg Glu Ala Pro Ala
 65 70 75 80

Thr Gln Ala Ser Ser Thr Thr Gln Leu Thr Asp Thr Gln Val Leu Ala
 85 90 95

Ala Glu Asn Lys Ser Leu Ala Ala Asp Thr Lys Lys Gln Asn Ala Asp
 100 105 110

Pro Gln Ala Val Thr Met Pro Ala Thr Glu Thr Lys Lys Val Ser His
 115 120 125

Val Ala Asp Thr Lys Val Asn Thr Lys Ala Gln Glu Thr Glu Ala Ala
 130 135 140

106

Pro	Ser	Gln	Ala	Pro	Ala	Asp	Glu	Pro	Glu	Pro	Glu	Ser	Ala	Ala	Ala	
145					150					155					160	
Gln	Ser	Gln	Glu	Asn	Gln	Asp	Thr	Arg	Pro	Lys	Val	Lys	Ala	Lys	Lys	
				165					170					175		
Ala	Arg	Lys	Val	Lys	His	Leu	Asp	Gly	Glu	Glu	Asp	Gly	Ser	Ser	Asp	
			180					185					190			
Gln	Ser	Gln	Ala	Ser	Gly	Thr	Thr	Gly	Gly	Arg	Arg	Val	Ser	Lys	Ala	
		195					200					205				
Leu	Met	Ala	Ser	Met	Ala	Arg	Arg	Ala	Ser	Arg	Gly	Pro	Ile	Ala	Phe	
	210					215					220					
Trp	Ala	Arg	Arg	Ala	Ser	Arg	Thr	Arg	Leu	Ala	Ala	Trp	Ala	Arg	Arg	
225					230					235					240	
Ala	Leu	Leu	Ser	Leu	Arg	Ser	Pro	Lys	Ala	Arg	Arg	Gly	Lys	Ala	Arg	
				245					250					255		
Arg	Arg	Ala	Ala	Lys	Leu	Gln	Ser	Ser	Gln	Glu	Pro	Glu	Ala	Pro	Pro	
			260					265					270			
Pro	Arg	Asp	Val	Ala	Leu	Leu	Gln	Gly	Arg	Ala	Asn	Asp	Leu	Val	Lys	
		275					280					285				
Tyr	Leu	Leu	Ala	Lys	Asp	Gln	Thr	Lys	Ile	Pro	Ile	Lys	Arg	Ser	Asp	
	290					295					300					
Met	Leu	Lys	Asp	Ile	Ile	Lys	Glu	Tyr	Thr	Asp	Val	Tyr	Pro	Glu	Ile	
305					310					315					320	
Ile	Glu	Arg	Ala	Gly	Tyr	Ser	Leu	Glu	Lys	Val	Phe	Gly	Ile	Gln	Leu	
				325					330					335		
Lys	Glu	Ile	Asp	Lys	Asn	Asp	His	Leu	Tyr	Ile	Leu	Leu	Ser	Thr	Leu	
			340					345					350			
Glu	Pro	Thr	Asp	Ala	Gly	Ile	Leu	Gly	Thr	Thr	Lys	Asp	Ser	Pro	Lys	
		355					360					365				
Leu	Gly	Leu	Leu	Met	Val	Leu	Leu	Ser	Ile	Ile	Phe	Met	Asn	Gly	Asn	
	370					375					380					
Arg	Ser	Ser	Glu	Gly	Glu	Trp	Leu	Gly	Leu	Gln	Leu	Asn	Gly	Trp	Leu	

107

385 390 395 400
 Trp Ser Arg Phe His Val Phe Asn Phe Cys Pro Cys Leu Leu Leu Pro
 405 410 415
 Pro Leu Ala Ala Val Ile Trp Glu Val Leu Arg Lys Leu Gly Leu Arg
 420 425 430
 Pro Gly Tyr Asp Trp Ala Leu Ser Ala Leu Ala Val Arg Val Val Leu
 435 440 445
 Trp Gln Glu Arg Thr Val Leu Gly Leu His Gln Ser Gly Gly Leu Val
 450 455 460
 Glu Arg Val Gly Cys Trp Thr Gly
 465 470

 <210> 118
 <211> 528
 <212> PRT
 <213> Homo sapien

 <400> 118
 Met Ser Asp Thr Ser Glu Ser Gly Ala Gly Leu Thr Arg Phe Gln Ala
 1 5 10 15
 Glu Ala Ser Glu Lys Asp Ser Ser Ser Met Met Gln Thr Leu Leu Thr
 20 25 30
 Val Thr Gln Asn Val Glu Val Pro Glu Thr Pro Lys Ala Ser Lys Ala
 35 40 45
 Leu Glu Val Ser Glu Asp Val Lys Val Ser Lys Ala Ser Gly Val Ser
 50 55 60
 Lys Ala Thr Glu Val Ser Lys Thr Pro Glu Ala Arg Glu Ala Pro Ala
 65 70 75 80
 Thr Gln Ala Ser Ser Thr Thr Gln Leu Thr Asp Thr Gln Val Leu Ala
 85 90 95
 Ala Glu Asn Lys Ser Leu Ala Ala Asp Thr Lys Lys Gln Asn Ala Asp
 100 105 110
 Pro Gln Ala Val Thr Met Pro Ala Thr Glu Thr Lys Lys Val Ser His
 115 120 125

108

Val Ala Asp Thr Lys Val Asn Thr Lys Ala Gln Glu Thr Glu Ala Ala
 130 135 140

Pro Ser Gln Ala Pro Ala Asp Glu Pro Glu Pro Glu Ser Ala Ala Ala
 145 150 155 160

Gln Ser Gln Glu Asn Gln Asp Thr Arg Pro Lys Val Lys Ala Lys Lys
 165 170 175

Ala Arg Lys Val Lys His Leu Asp Gly Glu Glu Asp Gly Ser Ser Asp
 180 185 190

Gln Ser Gln Ala Ser Gly Thr Thr Gly Gly Arg Arg Val Ser Lys Ala
 195 200 205

Leu Met Ala Ser Met Ala Arg Arg Ala Ser Arg Gly Pro Ile Ala Phe
 210 215 220

Trp Ala Arg Arg Ala Ser Arg Thr Arg Leu Ala Ala Trp Ala Arg Arg
 225 230 235 240

Ala Leu Leu Ser Leu Arg Ser Pro Lys Ala Arg Arg Gly Lys Ala Arg
 245 250 255

Arg Arg Ala Ala Lys Leu Gln Ser Ser Gln Glu Pro Glu Ala Pro Pro
 260 265 270

Pro Arg Asp Val Ala Leu Leu Gln Gly Arg Ala Asn Asp Leu Val Lys
 275 280 285

Tyr Leu Leu Ala Lys Asp Gln Thr Lys Ile Pro Ile Lys Arg Ser Gly
 290 295 300

Lys Val Leu Thr Asn Pro Pro Ser Ala Leu Ser Ser Ala Leu His Cys
 305 310 315 320

Pro Tyr Thr Ile Val Leu Gly Ile Ser Pro Ala Leu Met Leu Met Ser
 325 330 335

Leu Ser Ser Gln Ser Ser Asp Leu Ala Val Leu Ala Ser Leu Leu Ile
 340 345 350

Ser Thr Glu Pro Gly Tyr Ala Thr Leu Gly Val Val Gly Lys Glu Ser
 355 360 365

109

Ile Ala Trp Ala Ser Gly Pro Pro Gly Ile Ser Ser Val Arg Cys Ser
 370 375 380

Gln His Ser Pro Leu Ala Asp Met Leu Lys Asp Ile Ile Lys Glu Tyr
 385 390 395 400

Thr Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Gly Tyr Ser Leu Glu
 405 410 415

Lys Val Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Asn Asp His Leu
 420 425 430

Tyr Ile Leu Leu Ser Thr Leu Glu Pro Thr Asp Ala Gly Ile Leu Gly
 435 440 445

Thr Thr Lys Asp Ser Pro Lys Leu Gly Leu Leu Met Val Leu Leu Ser
 450 455 460

Ile Ile Phe Met Asn Gly Asn Arg Ser Ser Glu Ala Val Ile Trp Glu
 465 470 475 480

Val Leu Arg Lys Leu Gly Leu Arg Pro Gly Tyr Asp Trp Ala Leu Ser
 485 490 495

Ala Leu Ala Val Arg Val Val Leu Trp Gln Glu Arg Thr Val Leu Gly
 500 505 510

Leu His Gln Ser Gly Gly Leu Val Glu Arg Val Gly Cys Trp Thr Gly
 515 520 525

<210> 119

<211> 314

<212> PRT

<213> Homo sapien

<400> 119

Asp Met Ser Asp Thr Ser Glu Ser Gly Ala Gly Leu Thr Arg Phe Gln
 1 5 10 15

Ala Glu Ala Ser Glu Lys Asp Ser Ser Ser Met Met Gln Thr Leu Leu
 20 25 30

Thr Val Thr Gln Asn Val Glu Val Pro Glu Thr Pro Lys Ala Ser Lys
 35 40 45

Ala Leu Glu Val Ser Glu Asp Val Lys Val Ser Lys Ala Ser Gly Val
 50 55 60

110

Ser Lys Ala Thr Glu Val Ser Lys Thr Pro Glu Ala Arg Glu Ala Pro
65 70 75 80

Ala Thr Gln Ala Ser Ser Thr Thr Gln Leu Thr Asp Thr Gln Val Leu
85 90 95

Ala Ala Glu Asn Lys Ser Leu Ala Ala Asp Thr Lys Lys Gln Asn Ala
100 105 110

Asp Pro Gln Ala Val Thr Met Pro Ala Thr Glu Thr Lys Lys Val Ser
115 120 125

His Val Ala Asp Thr Lys Val Asn Thr Lys Ala Gln Glu Thr Glu Ala
130 135 140

Ala Pro Ser Gln Ala Pro Ala Asp Glu Pro Glu Pro Glu Ser Ala Ala
145 150 155 160

Ala Gln Ser Gln Glu Asn Gln Asp Thr Arg Pro Lys Val Lys Ala Lys
165 170 175

Lys Ala Arg Lys Val Lys His Leu Asp Gly Glu Glu Asp Gly Ser Ser
180 185 190

Asp Gln Ser Gln Ala Ser Gly Thr Thr Gly Gly Arg Arg Val Ser Lys
195 200 205

Ala Leu Met Ala Ser Met Ala Arg Arg Ala Ser Arg Gly Pro Ile Ala
210 215 220

Phe Trp Ala Arg Arg Ala Ser Arg Thr Arg Leu Ala Ala Trp Ala Arg
225 230 235 240

Arg Ala Leu Leu Ser Leu Arg Ser Pro Lys Ala Arg Arg Gly Lys Ala
245 250 255

Arg Arg Arg Ala Ala Lys Leu Gln Ser Ser Gln Glu Pro Glu Ala Pro
260 265 270

Pro Pro Arg Asp Val Ala Leu Leu Gln Gly Arg Ala Asn Asp Leu Val
275 280 285

Lys Tyr Leu Leu Ala Lys Asp Gln Thr Lys Ile Pro Ile Lys Arg Ser
290 295 300

111

Gly Lys Val Leu Pro Ile Leu Pro Leu Pro
305 310

<210> 120
<211> 35
<212> PRT
<213> Homo sapien

<400> 120

Ala Leu Thr Ala Leu Pro Gly Ala Ala Gly Ala Arg Arg Arg His Asp
1 5 10 15

Pro Leu Arg Leu Arg Gly Arg Arg Ala His Arg Glu Lys Ala Arg Gln
20 25 30

Gly Ser Ala
35

<210> 121
<211> 80
<212> PRT
<213> Homo sapien

<400> 121

Gly Arg Arg Ile Phe Glu Arg Thr Leu Gln Ile Leu Arg Thr Ser Val
1 5 10 15

Ala Leu Glu Thr Val Ser Trp Ile Ser Ile Phe Leu Cys Glu Gly Leu
20 25 30

Leu Leu Met Ser Pro Arg Ile Gln Thr Gln Thr Tyr Phe Ser Lys Lys
35 40 45

Val Gln Leu Gly Cys Tyr Ile Val Ala Arg Val Tyr Leu His Ala His
50 55 60

Leu Ala Phe Gln Ala Pro Ile Thr Ser Lys Val Ser Leu Lys Leu Phe
65 70 75 80

<210> 122
<211> 33
<212> PRT
<213> Homo sapien

<400> 122

Ala Leu Thr Ala Leu Pro Gly Ala Ala Gly Ala Arg Arg Arg His Asp
1 5 10 15

112

Pro Leu Arg Leu Arg Gly Arg Arg Ala His Arg Glu Lys Lys Pro Thr
 20 25 30

Gly

<210> 123
 <211> 80
 <212> PRT
 <213> Homo sapien

<400> 123

Gly Arg Arg Ile Phe Glu Arg Thr Leu Gln Ile Leu Arg Thr Ser Val
 1 5 10 15

Ala Leu Glu Thr Val Ser Trp Ile Ser Ile Phe Leu Cys Glu Gly Leu
 20 25 30

Leu Leu Met Ser Pro Arg Ile Gln Thr Gln Thr Tyr Phe Ser Lys Lys
 35 40 45

Val Gln Leu Gly Cys Tyr Ile Val Ala Arg Val Tyr Leu His Ala His
 50 55 60

Leu Ala Phe Gln Ala Pro Ile Thr Ser Lys Val Ser Leu Lys Leu Phe
 65 70 75 80

<210> 124
 <211> 73
 <212> PRT
 <213> Homo sapien

<400> 124

Met Ala Ile Arg Glu Leu Lys Val Cys Leu Leu Gly Asp Thr Gly Val
 1 5 10 15

Gly Lys Ser Ser Ile Val Cys Arg Phe Val Gln Asp His Phe Asp His
 20 25 30

Asn Ile Ser Pro Thr Ile Gly Ala Ser Phe Met Thr Lys Thr Val Pro
 35 40 45

Cys Gly Asn Glu Leu His Lys Phe Leu Ile Trp Asp Thr Ala Gly Gln
 50 55 60

Glu Arg Gly Gly Ser Pro Glu Gly Cys
 65 70

113

<210> 125
 <211> 94
 <212> PRT
 <213> Homo sapien

<400> 125

Thr Val Phe Arg Pro Thr Gly Tyr Leu Ala Tyr Cys Phe Asn Ile Ile
 1 5 10 15

Val Glu Thr Arg Pro Cys Ser Pro Val Val Leu Pro Cys Cys Ala Asn
 20 25 30

Cys Ser Phe Phe Ser Cys Phe Cys Lys Glu Leu Pro Ser Gly Leu Asp
 35 40 45

Pro Val Leu Ala His Thr Arg His Arg Cys Ser Gln Leu Gly Pro Phe
 50 55 60

Arg His Val Phe Tyr Ser Val Val Lys His Phe His Gln Gln Cys Leu
 65 70 75 80

Ile Val Ser Val Ile Phe Gly Leu Thr His Thr Asp Ser Tyr
 85 90

<210> 126
 <211> 54
 <212> PRT
 <213> Homo sapien

<400> 126

Val Asp Asp Arg Cys Leu Val Thr Leu Gly Asn Arg Cys Cys Ala Ala
 1 5 10 15

Lys Glu Trp Thr Val Arg Gly Arg Gln Ile Pro Pro Leu Asp Pro His
 20 25 30

Glu Asn Gly Asn Asn Gly Thr Ile Lys Val Glu Lys Pro Thr Met Gln
 35 40 45

Ala Ser Arg Arg Cys Cys
 50

<210> 127
 <211> 94
 <212> PRT
 <213> Homo sapien

114

<400> 127

Thr Val Phe Arg Pro Thr Gly Tyr Leu Ala Tyr Cys Phe Asn Ile Ile
 1 5 10 15

Val Glu Thr Arg Pro Cys Ser Pro Val Val Leu Pro Cys Cys Ala Asn
 20 25 30

Cys Ser Phe Phe Ser Cys Phe Cys Lys Glu Leu Pro Ser Gly Leu Asp
 35 40 45

Pro Val Leu Ala His Thr Arg His Arg Cys Ser Gln Leu Gly Pro Phe
 50 55 60

Arg His Val Phe Tyr Ser Val Val Lys His Phe His Gln Gln Cys Leu
 65 70 75 80

Ile Val Ser Val Ile Phe Gly Leu Thr His Thr Asp Ser Tyr
 85 90

<210> 128

<211> 284

<212> PRT

<213> Homo sapien

<400> 128

Met Gly Trp Ser Gly Arg Ser Gly Lys Gly Lys Leu Arg Arg Arg Ser
 1 5 10 15

Val Ser Gly Asn Met Ala Ser Arg Ser Lys Arg Arg Ala Val Glu Ser
 20 25 30

Gly Val Pro Gln Pro Pro Asp Pro Pro Val Gln Arg Asp Glu Glu Glu
 35 40 45

Glu Lys Glu Val Glu Asn Glu Asp Glu Asp Asp Asp Asp Ser Asp Lys
 50 55 60

Glu Lys Asp Glu Glu Asp Glu Val Ile Asp Glu Glu Val Asn Ile Glu
 65 70 75 80

Phe Glu Ala Tyr Ser Leu Ser Asp Asn Asp Tyr Asp Gly Ile Lys Lys
 85 90 95

Leu Leu Gln Gln Leu Phe Leu Lys Ala Pro Val Asn Thr Ala Glu Leu
 100 105 110

115

Thr Asp Leu Leu Ile Gln Gln Asn His Ile Gly Ser Val Ile Lys Gln
 115 120 125

Thr Asp Val Ser Glu Asp Ser Asn Asp Asp Met Asp Glu Asp Glu Val
 130 135 140

Phe Gly Phe Ile Ser Leu Leu Asn Leu Thr Glu Arg Lys Gly Thr Gln
 145 150 155 160

Cys Val Glu Gln Ile Gln Glu Leu Val Leu Arg Phe Cys Glu Lys Asn
 165 170 175

Cys Glu Lys Ser Met Val Glu Gln Leu Asp Lys Phe Leu Asn Asp Thr
 180 185 190

Thr Lys Pro Val Gly Leu Leu Leu Ser Glu Arg Phe Ile Asn Val Pro
 195 200 205

Pro Gln Ile Ala Leu Pro Met Tyr Gln Gln Leu Gln Lys Glu Leu Ala
 210 215 220

Gly Ala His Arg Thr Asn Lys Pro Cys Gly Lys Cys Tyr Phe Tyr Leu
 225 230 235 240

Leu Ile Ser Lys Thr Phe Val Glu Ala Gly Lys Asn Asn Ser Lys Lys
 245 250 255

Lys Pro Ser Asn Lys Lys Lys Ala Ala Leu Met Phe Ala Asn Ala Glu
 260 265 270

Glu Glu Phe Phe Tyr Glu Val Val His Gly Gly Lys
 275 280

<210> 129

<211> 220

<212> PRT

<213> Homo sapien

<400> 129

Met Gly Trp Ser Gly Arg Ser Gly Lys Gly Lys Leu Arg Arg Arg Ser
 1 5 10 15

Val Ser Gly Asn Met Ala Ser Arg Ser Lys Arg Arg Ala Val Glu Ser
 20 25 30

Gly Val Pro Gln Pro Pro Asp Pro Pro Val Gln Arg Asp Glu Glu Glu
 35 40 45

116

Glu Lys Glu Val Glu Asn Glu Asp Glu Asp Asp Asp Asp Ser Asp Lys
 50 55 60

Glu Lys Asp Glu Glu Asp Glu Val Ile Asp Glu Glu Val Asn Ile Glu
 65 70 75 80

Phe Glu Ala Tyr Ser Leu Ser Asp Asn Asp Tyr Asp Gly Ile Lys Lys
 85 90 95

Leu Leu Gln Gln Leu Phe Leu Lys Ala Pro Val Asn Thr Ala Glu Leu
 100 105 110

Thr Asp Leu Leu Ile Gln Gln Asn His Ile Gly Ser Val Ile Lys Gln
 115 120 125

Thr Asp Val Ser Glu Asp Ser Asn Asp Asp Met Asp Glu Asp Glu Val
 130 135 140

Phe Gly Phe Ile Ser Leu Leu Asn Leu Thr Glu Arg Lys Gly Thr Gln
 145 150 155 160

Cys Val Glu Gln Ile Gln Glu Leu Val Leu Arg Phe Cys Glu Lys Asn
 165 170 175

Cys Glu Lys Ser Met Val Glu Gln Leu Asp Lys Phe Leu Asn Asp Thr
 180 185 190

Thr Lys Pro Val Gly Leu Leu Leu Ser Glu Arg Phe Ile Asn Val Pro
 195 200 205

Pro Gln Ile Ala Leu Pro Met Tyr Gln Gln Leu Gln
 210 215 220

<210> 130

<211> 190

<212> PRT

<213> Homo sapien

<400> 130

Met Gly Trp Ser Gly Arg Ser Gly Lys Gly Lys Leu Arg Arg Arg Ser
 1 5 10 15

Val Ser Gly Asn Met Ala Ser Arg Ser Lys Arg Arg Ala Val Glu Ser
 20 25 30

Gly Val Pro Gln Pro Pro Asp Pro Pro Val Gln Arg Asp Glu Glu Glu
35 40 45

Glu Lys Glu Val Glu Asn Glu Asp Glu Asp Asp Asp Asp Ser Asp Lys
50 55 60

Glu Lys Asp Glu Glu Asp Glu Val Ile Asp Glu Glu Val Asn Ile Glu
65 70 75 80

Phe Glu Ala Tyr Ser Leu Ser Asp Asn Asp Tyr Asp Gly Ile Lys Lys
85 90 95

Leu Leu Gln Gln Leu Phe Leu Lys Ala Pro Val Asn Thr Ala Glu Leu
100 105 110

Thr Asp Leu Leu Ile Gln Gln Asn His Ile Gly Ser Val Ile Lys Gly
115 120 125

Thr Gln Cys Val Glu Gln Ile Gln Glu Leu Val Leu Arg Phe Cys Glu
130 135 140

Lys Asn Cys Glu Lys Ser Met Val Glu Gln Leu Asp Lys Phe Leu Asn
145 150 155 160

Asp Thr Thr Lys Pro Val Gly Leu Leu Leu Ser Glu Arg Phe Ile Asn
165 170 175

Val Pro Pro Gln Ile Ala Leu Pro Met Tyr Gln Gln Leu Gln
180 185 190

<210>	131
<211>	305
<212>	PRT
<213>	Homo sapien

<400> 131

Met Ala Ser Arg Lys Glu Asn Ala Lys Ser Ala Asn Arg Val Leu Arg
1 5 10 15

Ile Ser Gln Leu Asp Ala Leu Glu Leu Asn Lys Ala Leu Glu Gln Leu
20 25 30

Val Trp Ser Gln Phe Thr Gln Cys Phe His Gly Phe Lys Pro Gly Leu
35 40 45

Leu Ala Arg Phe Glu Pro Glu Val Lys Ala Cys Leu Trp Val Phe Leu
50 55 60

118

Trp Arg Phe Thr Ile Tyr Ser Lys Asn Ala Thr Val Gly Gln Ser Val
65 70 75 80

Leu Asn Ile Lys Tyr Lys Asn Asp Phe Ser Pro Asn Leu Arg Tyr Gln
85 90 95

Pro Pro Ser Lys Asn Gln Lys Ile Trp Tyr Ala Val Cys Thr Ile Gly
100 105 110

Gly Arg Trp Leu Glu Glu Arg Cys Tyr Asp Leu Phe Arg Asn His His
115 120 125

Leu Ala Ser Phe Gly Lys Val Lys Gln Cys Val Asn Phe Val Ile Gly
130 135 140

Leu Leu Lys Leu Gly Gly Leu Ile Asn Phe Leu Ile Phe Leu Gln Arg
145 150 155 160

Gly Lys Phe Ala Thr Leu Thr Glu Arg Leu Leu Gly Ile His Ser Val
165 170 175

Phe Cys Lys Pro Gln Asn Ile Arg Glu Val Gly Phe Glu Tyr Met Asn
180 185 190

Arg Glu Leu Leu Trp His Gly Phe Ala Glu Phe Leu Ile Phe Leu Leu
195 200 205

Pro Leu Ile Asn Val Gln Lys Leu Lys Ala Lys Leu Ser Ser Trp Cys
210 215 220

Ile Pro Leu Thr Gly Ala Pro Asn Ser Asp Asn Thr Leu Ala Thr Ser
225 230 235 240

Gly Lys Glu Cys Ala Leu Cys Gly Glu Trp Pro Thr Met Pro His Thr
245 250 255

Ile Gly Cys Glu His Ile Phe Cys Tyr Phe Cys Ala Lys Ser Ser Phe
260 265 270

Leu Phe Asp Val Tyr Phe Thr Cys Pro Lys Cys Gly Thr Glu Val His
275 280 285

Ser Leu Gln Pro Leu Lys Ser Gly Ile Glu Met Ser Glu Val Asn Ala
290 295 300

119

Leu
305

<210> 132
<211> 582
<212> PRT
<213> Homo sapien

<400> 132

Met Ala Ala Arg Ser Trp Gln Asp Glu Leu Ala Gln Gln Ala Glu Glu
1 5 10 15

Gly Ser Ala Arg Leu Arg Glu Met Leu Ser Val Gly Leu Gly Phe Leu
20 25 30

Arg Thr Glu Leu Gly Leu Asp Leu Gly Leu Glu Pro Lys Arg Tyr Pro
35 40 45

Gly Trp Val Ile Leu Val Gly Thr Gly Ala Leu Gly Leu Leu Leu Leu
50 55 60

Phe Leu Leu Gly Tyr Gly Trp Ala Ala Ala Cys Ala Gly Ala Arg Lys
65 70 75 80

Lys Arg Arg Ser Pro Pro Arg Lys Arg Glu Glu Ala Ala Ala Val Pro
85 90 95

Ala Ala Ala Pro Asp Asp Leu Ala Leu Leu Lys Asn Leu Arg Ser Glu
100 105 110

Glu Gln Lys Lys Lys Asn Arg Lys Lys Leu Ser Glu Lys Pro Lys Pro
115 120 125

Asn Gly Arg Thr Val Glu Val Ala Glu Gly Glu Ala Val Arg Thr Pro
130 135 140

Gln Ser Val Thr Ala Lys Gln Pro Pro Glu Ile Asp Lys Lys Asn Glu
145 150 155 160

Lys Ser Lys Lys Asn Lys Lys Lys Ser Lys Ser Asp Ala Lys Ala Val
165 170 175

Gln Asn Ser Ser Arg His Asp Gly Lys Glu Val Asp Glu Gly Ala Trp
180 185 190

Glu Thr Lys Ile Ser His Arg Glu Lys Arg Gln Gln Arg Lys Arg Asp

120

195	200	205
Lys Val Leu Thr Asp Ser Gly Ser Leu Asp Ser Thr Ile Pro Gly Ile 210 215 220		
Glu Asn Thr Ile Thr Val Thr Thr Glu Gln Leu Thr Thr Ala Ser Phe 225 230 235 240		
Pro Val Gly Ser Lys Lys Asn Lys Gly Asp Ser His Leu Asn Val Gln 245 250 255		
Val Ser Asn Phe Lys Ser Gly Lys Gly Asp Ser Thr Leu Gln Val Ser 260 265 270		
Ser Gly Leu Asn Glu Asn Leu Thr Val Asn Gly Gly Gly Trp Asn Glu 275 280 285		
Lys Ser Val Lys Leu Ser Ser Gln Ile Ser Ala Gly Glu Glu Lys Trp 290 295 300		
Asn Ser Val Ser Pro Ala Ser Ala Gly Lys Arg Lys Thr Glu Pro Ser 305 310 315 320		
Ala Trp Ser Gln Asp Thr Gly Asp Ala Asn Thr Asn Gly Lys Asp Trp 325 330 335		
Gly Arg Ser Trp Ser Asp Arg Ser Ile Phe Ser Gly Ile Gly Ser Thr 340 345 350		
Ala Glu Pro Val Ser Gln Ser Thr Thr Ser Asp Tyr Gln Trp Asp Val 355 360 365		
Ser Arg Asn Gln Pro Tyr Ile Asp Asp Glu Trp Ser Gly Leu Asn Gly 370 375 380		
Leu Ser Ser Ala Asp Pro Asn Ser Asp Trp Asn Ala Pro Ala Glu Glu 385 390 395 400		
Trp Gly Asn Trp Val Asp Glu Glu Arg Ala Ser Leu Leu Lys Ser Gln 405 410 415		
Glu Pro Ile Pro Asp Asp Gln Lys Val Ser Asp Asp Asp Lys Glu Lys 420 425 430		
Gly Glu Gly Ala Leu Pro Thr Gly Lys Ser Lys Lys Lys Lys Lys Lys 435 440 445		

121

Lys Lys Lys Gln Gly Glu Asp Asn Ser Thr Ala Gln Asp Thr Glu Glu
 450 455 460

Leu Glu Lys Glu Ile Arg Glu Asp Leu Pro Val Asn Thr Ser Lys Thr
 465 470 475 480

Arg Pro Lys Gln Glu Lys Ala Phe Ser Leu Lys Thr Ile Ser Thr Ser
 485 490 495

Asp Pro Ala Glu Val Leu Val Lys Asn Ser Gln Pro Ile Lys Thr Leu
 500 505 510

Pro Pro Ala Thr Ser Thr Glu Pro Ser Val Ile Leu Ser Lys Ser Asp
 515 520 525

Ser Asp Lys Ser Ser Ser Gln Val Pro Pro Ile Leu Gln Glu Thr Asp
 530 535 540

Lys Ser Lys Ser Asn Thr Lys Gln Asn Ser Val Pro Pro Ser Gln Thr
 545 550 555 560

Lys Ser Glu Thr Ser Trp Glu Ser Pro Lys Gln Ile Lys Lys Lys Lys
 565 570 575

Lys Ala Arg Arg Glu Thr
 580

<210> 133
 <211> 389
 <212> PRT
 <213> Homo sapien

<400> 133

Met Asp Ala Trp Ser Arg Pro Arg Tyr Ser Leu Glu Pro Val Ala Val
 1 5 10 15

Glu Leu Lys Ser Leu Leu Gly Lys Ser Lys Cys Gln Ala Leu Val Leu
 20 25 30

Val Asp Leu Trp Arg Gly Lys Leu Ser Ser Thr Leu Leu Leu Val Phe
 35 40 45

Asn Phe His Thr Ala Gln Val Ser Ser Ser Leu Pro Leu Leu Arg Asp
 50 55 60

122

Val Leu Phe Leu Lys Asp Cys Val Gly Pro Glu Val Glu Lys Ala Cys
65 70 75 80

Ala Asn Pro Ala Ala Gly Ser Val Ile Leu Leu Glu Asn Leu Arg Phe
85 90 95

His Val Glu Glu Glu Gly Lys Gly Lys Asp Ala Ser Gly Asn Lys Val
100 105 110

Lys Ala Glu Pro Ala Lys Ile Glu Ala Phe Arg Ala Ser Leu Ser Lys
115 120 125

Leu Gly Asp Val Tyr Val Asn Asp Ala Phe Gly Thr Ala His Arg Ala
130 135 140

His Ser Ser Met Val Gly Val Asn Leu Pro Gln Lys Ala Gly Gly Phe
145 150 155 160

Leu Met Lys Lys Glu Leu Asn Tyr Phe Ala Lys Ala Leu Glu Ser Pro
165 170 175

Glu Arg Pro Phe Leu Ala Ile Leu Gly Gly Ala Lys Val Ala Asp Lys
180 185 190

Ile Gln Leu Ile Asn Asn Met Leu Asp Lys Val Asn Glu Met Ile Ile
195 200 205

Gly Gly Gly Met Ala Phe Thr Phe Leu Lys Val Leu Asn Asn Met Glu
210 215 220

Ile Gly Thr Ser Leu Phe Asp Glu Glu Gly Ala Lys Ile Val Lys Asp
225 230 235 240

Leu Met Ser Lys Ala Glu Lys Asn Gly Val Lys Ile Thr Leu Pro Val
245 250 255

Asp Phe Val Thr Ala Asp Lys Phe Asp Glu Asn Ala Lys Thr Gly Gln
260 265 270

Ala Thr Val Ala Ser Gly Ile Pro Ala Gly Trp Met Gly Leu Asp Cys
275 280 285

Gly Pro Glu Ser Ser Lys Lys Tyr Ala Glu Ala Val Thr Arg Ala Lys
290 295 300

Gln Ile Val Trp Asn Gly Pro Val Gly Val Phe Glu Trp Glu Ala Phe

123

305 310 315 320

Ala Arg Gly Thr Lys Ala Leu Met Asp Glu Val Val Lys Ala Thr Ser
325 330 335

Arg Gly Cys Ile Thr Ile Ile Gly Gly Gly Asp Thr Ala Thr Cys Cys
340 345 350

Ala Lys Trp Asn Thr Glu Asp Lys Val Ser His Val Ser Thr Gly Gly
355 360 365

Gly Ala Ser Leu Glu Leu Leu Glu Gly Lys Val Leu Pro Gly Val Asp
370 375 380

Ala Leu Ser Asn Ile
385

<210> 134
<211> 121
<212> PRT
<213> Homo sapien

<400> 134

Met Ala Ser Ser Asp Ile Gln Val Lys Glu Leu Glu Lys Arg Ala Ser
1 5 10 15

Gly Gln Ala Phe Glu Leu Ile Leu Ser Pro Arg Ser Lys Glu Ser Val
20 25 30

Pro Glu Phe Pro Leu Ser Pro Pro Lys Lys Lys Asp Leu Ser Leu Glu
35 40 45

Glu Ile Gln Lys Lys Leu Glu Ala Ala Glu Glu Arg Arg Lys Ser His
50 55 60

Glu Ala Glu Val Leu Lys Gln Leu Ala Glu Lys Arg Glu His Glu Lys
65 70 75 80

Glu Val Leu Gln Lys Ala Ile Glu Glu Asn Asn Asn Phe Ser Lys Met
85 90 95

Ala Glu Glu Lys Leu Thr His Lys Met Glu Ala Lys Val Phe Tyr Ser
100 105 110

Phe Ser Lys Val Leu Val Phe Leu Met
115 120

124

<210> 135
 <211> 121
 <212> PRT
 <213> Homo sapien

<400> 135

Met Val Ala Ser Ala Glu Met Phe Leu Gly Cys Glu Glu Leu Gly Val
 1 5 10 15

Ser Leu Glu Gly Pro Gln Asp Gln Met Thr Cys Glu Glu Tyr Val Ala
 20 25 30

Phe Ile Leu Ala Ala Gly Glu Ala Gly Arg Gly Val Arg Glu Ala Asn
 35 40 45

Gly Cys Phe Ala Glu Cys Phe Trp Gly Thr Asn Thr Ser Ser His Arg
 50 55 60

Gly Cys Ser Leu Lys Lys Gly Gly Asp Arg Trp Gly Ala Phe Leu Thr
 65 70 75 80

Tyr Ser Arg Asn Thr Cys Leu Phe Leu Lys Cys Phe His Leu Leu Lys
 85 90 95

Lys Lys Lys Met Pro Pro Lys His Tyr Ala Gly His Glu Leu Leu Gln
 100 105 110

Asn Val Glu Val Ile Lys Cys Asn Cys
 115 120

<210> 136
 <211> 232
 <212> PRT
 <213> Homo sapien

<400> 136

Met Ala Tyr His Ser Phe Leu Val Glu Pro Ile Ser Cys His Ala Trp
 1 5 10 15

Asn Lys Asp Arg Thr Gln Ile Ala Ile Cys Pro Asn Asn His Glu Val
 20 25 30

His Ile Tyr Glu Lys Ser Gly Ala Lys Trp Thr Lys Val His Glu Leu
 35 40 45

Lys Glu His Asn Gly Gln Val Thr Gly Ile Asp Trp Ala Pro Glu Ser
 50 55 60

125

Asn Arg Ile Val Thr Cys Gly Thr Asp Arg Asn Ala Tyr Val Trp Thr
65 70 75 80

Leu Lys Gly Arg Thr Trp Lys Pro Thr Leu Val Ile Leu Arg Ile Asn
85 90 95

Arg Ala Ala Arg Cys Val Arg Trp Ala Pro Asn Glu Asn Lys Phe Ala
100 105 110

Val Gly Ser Gly Ser Arg Val Ile Ser Ile Cys Tyr Phe Glu Gln Glu
115 120 125

Asn Asp Trp Trp Val Cys Lys His Ile Lys Lys Pro Ile Arg Ser Thr
130 135 140

Val Leu Ser Leu Asp Trp His Pro Asn Asn Val Leu Leu Ala Ala Gly
145 150 155 160

Ser Cys Asp Phe Lys Cys Arg Ile Phe Ser Ala Tyr Ile Lys Glu Val
165 170 175

Glu Glu Arg Pro Ala Pro Thr Pro Trp Gly Ser Lys Met Pro Phe Gly
180 185 190

Glu Leu Met Phe Glu Ser Ser Ser Ser Cys Gly Trp Val His Gly Val
195 200 205

Cys Phe Ser Ala Ser Gly Ser Arg Val Ala Ser Ser Arg Leu Trp Pro
210 215 220

Leu Lys His Tyr His Cys Trp Arg
225 230

<210> 137

<211> 582

<212> PRT

<213> Homo sapien

<400> 137

Met Phe Tyr Tyr Pro Asn Val Leu Gln Arg His Thr Gly Cys Phe Ala
1 5 10 15

Thr Ile Trp Leu Ala Ala Thr Arg Gly Ser Arg Leu Val Lys Arg Glu
20 25 30

126

Tyr	Leu	Arg	Val	Asn	Val	Val	Lys	Thr	Cys	Glu	Glu	Ile	Leu	Asn	Tyr
	35						40					45			
Val	Leu	Val	Arg	Val	Gln	Pro	Pro	Gln	Pro	Gly	Leu	Pro	Arg	Pro	Arg
	50					55					60				
Phe	Ser	Leu	Tyr	Leu	Ser	Ala	Gln	Leu	Gln	Ile	Gly	Val	Ile	Arg	Val
65					70					75					80
Tyr	Ser	Gln	Gln	Cys	Gln	Tyr	Leu	Val	Glu	Asp	Ile	Gln	His	Ile	Leu
				85					90					95	
Glu	Arg	Leu	His	Arg	Ala	Gln	Leu	Gln	Ile	Arg	Ile	Asp	Met	Glu	Thr
			100					105					110		
Glu	Leu	Pro	Ser	Leu	Leu	Leu	Pro	Asn	His	Leu	Ala	Met	Met	Glu	Thr
		115					120					125			
Leu	Glu	Asp	Ala	Pro	Asp	Pro	Phe	Phe	Gly	Met	Met	Ser	Val	Asp	Pro
	130					135					140				
Arg	Leu	Pro	Ser	Pro	Phe	Asp	Ile	Pro	Gln	Ile	Arg	His	Leu	Leu	Glu
145					150					155					160
Ala	Ala	Ile	Pro	Glu	Arg	Val	Glu	Glu	Ile	Pro	Pro	Glu	Val	Pro	Thr
				165					170					175	
Glu	Pro	Arg	Glu	Pro	Glu	Arg	Ile	Pro	Val	Thr	Val	Leu	Pro	Pro	Glu
			180					185					190		
Ala	Ile	Thr	Ile	Leu	Glu	Ala	Glu	Pro	Ile	Arg	Met	Leu	Glu	Ile	Glu
		195					200					205			
Gly	Glu	Arg	Glu	Leu	Pro	Glu	Val	Ser	Arg	Arg	Glu	Leu	Asp	Leu	Leu
	210					215					220				
Ile	Ala	Glu	Glu	Glu	Glu	Ala	Ile	Leu	Leu	Glu	Ile	Pro	Arg	Leu	Pro
225						230				235				240	
Pro	Pro	Ala	Pro	Ala	Glu	Val	Glu	Gly	Ile	Gly	Glu	Ala	Leu	Gly	Pro
				245					250					255	
Glu	Glu	Leu	Arg	Leu	Thr	Gly	Trp	Glu	Pro	Gly	Ala	Leu	Leu	Met	Glu
			260					265					270		
Val	Thr	Pro	Pro	Glu	Glu	Leu	Arg	Leu	Pro	Ala	Pro	Pro	Ser	Pro	Glu

127

275

280

285

Arg Arg Pro Pro Val Pro Pro Pro Pro Arg Arg Arg Arg Arg Arg Arg
 290 295 300

Leu Leu Phe Trp Asp Lys Glu Thr Gln Ile Ser Pro Glu Lys Phe Gln
 305 310 315 320

Glu Gln Leu Gln Thr Arg Ala His Cys Trp Glu Cys Pro Met Val Gln
 325 330 335

Pro Pro Glu Arg Thr Ile Arg Gly Pro Ala Glu Leu Phe Arg Thr Pro
 340 345 350

Thr Leu Cys Lys Asn Gly Gly Gly Trp Ala Arg Ser Ile Leu Lys Thr
 355 360 365

Asn Ser Ser Phe Leu Val Leu Leu Thr Pro Gln Thr Leu Cys Leu Leu
 370 375 380

Pro Ser Val Ser Thr Ala Gly Trp Leu Pro Pro Glu Leu Leu Gly Leu
 385 390 395 400

Trp Thr His Cys Ala Gln Pro Pro Pro Lys Ala Leu Arg Arg Glu Leu
 405 410 415

Pro Glu Glu Ala Ala Ala Glu Glu Glu Arg Arg Lys Ile Glu Val Pro
 420 425 430

Ser Glu Ile Glu Val Pro Arg Glu Ala Leu Glu Pro Ser Val Pro Leu
 435 440 445

Met Val Ser Leu Glu Ile Ser Leu Glu Ala Ala Glu Glu Glu Lys Ser
 450 455 460

Arg Ile Ser Leu Ile Pro Pro Glu Glu Arg Trp Ala Trp Pro Glu Val
 465 470 475 480

Glu Ala Pro Glu Ala Pro Ala Leu Pro Val Val Pro Glu Leu Pro Glu
 485 490 495

Val Pro Met Glu Met Pro Leu Val Leu Pro Pro Glu Leu Glu Leu Leu
 500 505 510

Ser Leu Glu Ala Val His Arg Ala Val Ala Leu Glu Leu Gln Ala Asn
 515 520 525

128

Arg Glu Pro Asp Phe Ser Ser Leu Val Ser Pro Leu Ser Pro Arg Arg
 530 535 540

Met Ala Ala Arg Val Phe Tyr Leu Leu Leu Val Leu Ser Ala Gln Gln
 545 550 555 560

Ile Leu His Val Lys Gln Glu Lys Pro Tyr Gly Arg Leu Leu Ile Gln
 565 570 575

Pro Gly Pro Arg Phe His
 580

<210> 138
 <211> 456
 <212> PRT
 <213> Homo sapien

<400> 138

Lys Thr Arg Gly Thr Met Phe Tyr Tyr Pro Asn Val Leu Gln Arg His
 1 5 10 15

Thr Gly Cys Phe Ala Thr Ile Trp Leu Ala Ala Thr Arg Gly Ser Arg
 20 25 30

Leu Val Lys Arg Glu Tyr Leu Arg Val Asn Val Val Lys Thr Cys Glu
 35 40 45

Glu Ile Leu Asn Tyr Val Leu Val Arg Val Gln Pro Pro Gln Pro Gly
 50 55 60

Leu Pro Arg Pro Arg Phe Ser Leu Tyr Leu Ser Ala Gln Leu Gln Ile
 65 70 75 80

Gly Val Ile Arg Val Tyr Ser Gln Gln Cys Gln Tyr Leu Val Glu Asp
 85 90 95

Ile Gln His Ile Leu Glu Arg Leu His Arg Ala Gln Leu Gln Ile Arg
 100 105 110

Ile Asp Met Glu Thr Glu Leu Pro Ser Leu Leu Leu Pro Asn His Leu
 115 120 125

Ala Met Met Glu Thr Leu Glu Asp Ala Pro Asp Pro Phe Phe Gly Met
 130 135 140

129

Met Ser Val Asp Pro Arg Leu Pro Ser Pro Phe Asp Ile Pro Gln Ile
 145 150 155 160

Arg His Leu Leu Glu Ala Ala Ile Pro Glu Arg Val Glu Glu Ile Pro
 165 170 175

Pro Glu Val Pro Thr Glu Pro Arg Glu Pro Glu Arg Ile Pro Val Thr
 180 185 190

Val Leu Pro Pro Glu Ala Ile Thr Ile Leu Glu Ala Glu Pro Ile Arg
 195 200 205

Met Leu Glu Ile Glu Gly Glu Arg Glu Leu Pro Glu Val Ser Arg Arg
 210 215 220

Glu Leu Asp Leu Leu Ile Ala Glu Glu Glu Glu Ala Ile Leu Leu Glu
 225 230 235 240

Ile Pro Arg Leu Pro Pro Pro Ala Pro Ala Glu Val Glu Gly Ile Gly
 245 250 255

Glu Ala Leu Gly Pro Glu Glu Leu Arg Leu Thr Gly Trp Glu Pro Gly
 260 265 270

Ala Leu Leu Met Glu Val Thr Pro Pro Glu Glu Leu Arg Leu Pro Ala
 275 280 285

Pro Pro Ser Pro Glu Arg Arg Pro Pro Val Pro Pro Pro Pro Arg Arg
 290 295 300

Arg Arg Arg Arg Arg Leu Leu Phe Trp Asp Lys Glu Thr Gln Ile Ser
 305 310 315 320

Pro Glu Lys Phe Gln Glu Gln Leu Gln Thr Arg Ala His Cys Trp Glu
 325 330 335

Cys Pro Met Val Gln Pro Pro Glu Arg Thr Ile Arg Gly Pro Ala Glu
 340 345 350

Leu Phe Arg Thr Pro Thr Leu Cys Lys Asn Gly Gly Gly Trp Ala Arg
 355 360 365

Ser Ile Leu Lys Thr Asn Ser Ser Phe Leu Val Leu Leu Thr Pro Gln
 370 375 380

Thr Leu Cys Leu Leu Pro Ser Cys Pro Gln Leu Ala Gly Tyr Pro Leu

130

385 390 395 400

Asn Tyr Trp Val Ser Gly Pro Ile Val Pro Ser His Pro Gln Lys Pro
405 410 415

Ser Gly Glu Ser Cys Leu Arg Arg Gln Pro Leu Arg Arg Lys Gly Glu
420 425 430

Arg Leu Lys Phe Gln Val Arg Leu Arg Ser Arg Gly Arg Pro Trp Ser
435 440 445

Pro Val Phe Pro Leu Trp Cys Leu
450 455

<210> 139
<211> 357
<212> PRT
<213> Homo sapien

<400> 139

Met Lys Ser Ser Arg Gly Val Gly Ile Cys Val Ala Ser Ser Asp Leu
1 5 10 15

Leu Ser Ser Asp Lys Ala Lys Arg Tyr Lys Lys Asn Leu Lys Ala Leu
20 25 30

Tyr Val Val His Pro Thr Ser Phe Ile Lys Val Leu Trp Asn Ile Leu
35 40 45

Lys Pro Leu Ile Ser His Lys Phe Gly Lys Lys Val Ile Tyr Phe Asn
50 55 60

Tyr Leu Ser Glu Leu His Glu His Leu Lys Tyr Asp Gln Leu Val Ile
65 70 75 80

Pro Pro Glu Val Leu Arg Tyr Asp Glu Lys Leu Gln Ser Leu His Glu
85 90 95

Gly Arg Thr Pro Pro Pro Thr Lys Thr Pro Pro Pro Arg Pro Pro Leu
100 105 110

Pro Thr Gln Gln Phe Gly Val Ser Leu Gln Tyr Leu Lys Asp Lys Asn
115 120 125

Gln Gly Glu Leu Ile Pro Pro Val Leu Arg Phe Thr Val Thr Tyr Leu
130 135 140

131

Arg Glu Lys Gly Leu Arg Thr Glu Gly Leu Phe Arg Arg Ser Ala Ser
 145 150 155 160

Val Gln Thr Val Arg Glu Ile Gln Arg Leu Tyr Asn Gln Gly Lys Pro
 165 170 175

Val Asn Phe Asp Asp Tyr Gly Asp Ile His Ile Pro Ala Val Ile Leu
 180 185 190

Lys Thr Phe Leu Arg Glu Leu Pro Gln Pro Leu Leu Thr Phe Gln Ala
 195 200 205

Tyr Glu Gln Ile Leu Gly Ile Thr Cys Val Glu Ser Ser Leu Arg Val
 210 215 220

Thr Gly Cys Arg Gln Ile Leu Arg Ser Leu Pro Glu His Asn Tyr Val
 225 230 235 240

Val Leu Arg Tyr Leu Met Gly Phe Leu His Ala Val Ser Arg Glu Ser
 245 250 255

Ile Phe Asn Lys Met Asn Ser Ser Asn Leu Ala Cys Val Phe Gly Leu
 260 265 270

Asn Leu Ile Trp Pro Ser Gln Gly Val Ser Ser Leu Ser Ala Leu Val
 275 280 285

Pro Leu Asn Met Phe Thr Glu Leu Leu Ile Glu Tyr Tyr Glu Lys Ile
 290 295 300

Phe Ser Thr Pro Glu Ala Pro Gly Glu His Gly Leu Ala Pro Trp Glu
 305 310 315 320

Gln Gly Ser Arg Ala Ala Pro Leu Gln Glu Ala Val Pro Arg Thr Gln
 325 330 335

Ala Thr Gly Leu Thr Lys Pro Thr Leu Pro Pro Ser Pro Leu Met Ala
 340 345 350

Ala Arg Arg Arg Leu
 355

<210> 140
 <211> 337
 <212> PRT
 <213> Homo sapien

132

<400> 140

Gln Ser Gln Arg Tyr Lys Lys Asn Leu Lys Ala Leu Tyr Val Val His
 1 5 10 15

Pro Thr Ser Phe Ile Lys Val Leu Trp Asn Ile Leu Lys Pro Leu Ile
 20 25 30

Ser His Lys Phe Gly Lys Lys Val Ile Tyr Phe Asn Tyr Leu Ser Glu
 35 40 45

Leu His Glu His Leu Lys Tyr Asp Gln Leu Val Ile Pro Pro Glu Val
 50 55 60

Leu Arg Tyr Asp Glu Lys Leu Gln Ser Leu His Glu Gly Arg Thr Pro
 65 70 75 80

Pro Pro Thr Lys Thr Pro Pro Pro Arg Pro Pro Leu Pro Thr Gln Gln
 85 90 95

Phe Gly Val Ser Leu Gln Tyr Leu Lys Asp Lys Asn Gln Gly Glu Leu
 100 105 110

Ile Pro Pro Val Leu Arg Phe Thr Val Thr Tyr Leu Arg Glu Lys Gly
 115 120 125

Leu Arg Thr Glu Gly Leu Phe Arg Arg Ser Ala Ser Val Gln Thr Val
 130 135 140

Arg Glu Ile Gln Arg Leu Tyr Asn Gln Gly Lys Pro Val Asn Phe Asp
 145 150 155 160

Asp Tyr Gly Asp Ile His Ile Pro Ala Val Ile Leu Lys Thr Phe Leu
 165 170 175

Arg Glu Leu Pro Gln Pro Leu Leu Thr Phe Gln Ala Tyr Glu Gln Ile
 180 185 190

Leu Gly Ile Thr Cys Val Glu Ser Ser Leu Arg Val Thr Gly Cys Arg
 195 200 205

Gln Ile Leu Arg Ser Leu Pro Glu His Asn Tyr Val Val Leu Arg Tyr
 210 215 220

Leu Met Gly Phe Leu His Ala Val Ser Arg Glu Ser Ile Phe Asn Lys
 225 230 235 240

133

Met Asn Ser Ser Asn Leu Ala Cys Val Phe Gly Leu Asn Leu Ile Trp
 245 250 255

Pro Ser Gln Gly Val Ser Ser Leu Ser Ala Leu Val Pro Leu Asn Met
 260 265 270

Phe Thr Glu Leu Leu Ile Glu Tyr Tyr Glu Lys Ile Phe Ser Thr Pro
 275 280 285

Glu Ala Pro Gly Glu His Gly Leu Ala Pro Trp Glu Gln Gly Ser Arg
 290 295 300

Ala Ala Pro Leu Gln Glu Ala Val Pro Arg Thr Gln Ala Thr Gly Leu
 305 310 315 320

Thr Lys Pro Thr Leu Pro Pro Ser Pro Leu Met Ala Ala Arg Arg Arg
 325 330 335

Leu

<210> 141
 <211> 237
 <212> PRT
 <213> Homo sapien

<400> 141

Met Gly Arg Gly Val Ser Tyr Asn Val Leu Glu Ala Leu Trp Ala Gly
 1 5 10 15

Thr Cys Glu Met Pro Gly Ser Ser Ser Pro Ala Gly Leu Arg Thr Glu
 20 25 30

Gly Leu Phe Arg Arg Ser Ala Ser Val Gln Thr Val Arg Glu Ile Gln
 35 40 45

Arg Leu Tyr Asn Gln Gly Lys Pro Val Asn Phe Asp Asp Tyr Gly Asp
 50 55 60

Ile His Ile Pro Ala Val Ile Leu Lys Thr Phe Leu Arg Glu Leu Pro
 65 70 75 80

Gln Pro Leu Leu Thr Phe Gln Ala Tyr Glu Gln Ile Leu Gly Ile Thr
 85 90 95

134

Cys Val Glu Ser Ser Leu Arg Val Thr Gly Cys Arg Gln Ile Leu Arg
 100 105 110

Ser Leu Pro Glu His Asn Tyr Val Val Leu Arg Tyr Leu Met Gly Phe
 115 120 125

Leu His Ala Val Ser Arg Glu Ser Ile Phe Asn Lys Met Asn Ser Ser
 130 135 140

Asn Leu Ala Cys Val Phe Gly Leu Asn Leu Ile Trp Pro Ser Gln Gly
 145 150 155 160

Val Ser Ser Leu Ser Ala Leu Val Pro Leu Asn Met Phe Thr Glu Leu
 165 170 175

Leu Ile Glu Tyr Tyr Glu Lys Ile Phe Ser Thr Pro Glu Ala Pro Gly
 180 185 190

Glu His Gly Leu Ala Pro Trp Glu Gln Gly Ser Arg Ala Ala Pro Leu
 195 200 205

Gln Glu Ala Val Pro Arg Thr Gln Ala Thr Gly Leu Thr Lys Pro Thr
 210 215 220

Leu Pro Pro Ser Pro Leu Met Ala Ala Arg Arg Arg Leu
 225 230 235

<210> 142
 <211> 248
 <212> PRT
 <213> Homo sapien

<400> 142

Met Cys Gly Gly Gln Pro Gln Val Gly Asp Ala Met Gly Arg Gly Val
 1 5 10 15

Ser Tyr Asn Val Leu Glu Ala Leu Trp Ala Gly Thr Cys Glu Met Pro
 20 25 30

Gly Ser Ser Ser Pro Ala Gly Leu Arg Thr Glu Gly Leu Phe Arg Arg
 35 40 45

Ser Ala Ser Val Gln Thr Val Arg Glu Ile Gln Arg Leu Tyr Asn Gln
 50 55 60

Gly Lys Pro Val Asn Phe Asp Asp Tyr Gly Asp Ile His Ile Pro Ala
 65 70 75 80

135

Val Ile Leu Lys Thr Phe Leu Arg Glu Leu Pro Gln Pro Leu Leu Thr
85 90 95

Phe Gln Ala Tyr Glu Gln Ile Leu Gly Ile Thr Cys Val Glu Ser Ser
100 105 110

Leu Arg Val Thr Gly Cys Arg Gln Ile Leu Arg Ser Leu Pro Glu His
115 120 125

Asn Tyr Val Val Leu Arg Tyr Leu Met Gly Phe Leu His Ala Val Ser
130 135 140

Arg Glu Ser Ile Phe Asn Lys Met Asn Ser Ser Asn Leu Ala Cys Val
145 150 155 160

Phe Gly Leu Asn Leu Ile Trp Pro Ser Gln Gly Val Ser Ser Leu Ser
165 170 175

Ala Leu Val Pro Leu Asn Met Phe Thr Glu Leu Leu Ile Glu Tyr Tyr
180 185 190

Glu Lys Ile Phe Ser Thr Pro Glu Ala Pro Gly Glu His Gly Leu Ala
195 200 205

Pro Trp Glu Gln Gly Ser Arg Ala Ala Pro Leu Gln Glu Ala Val Pro
210 215 220

Arg Thr Gln Ala Thr Gly Leu Thr Lys Pro Thr Leu Pro Pro Ser Pro
225 230 235 240

Leu Met Ala Ala Arg Arg Arg Leu
245

<210> 143

<211> 113

<212> PRT

<213> Homo sapien

<400> 143

Met Gly Phe Phe Ser Arg Arg Thr Phe Cys Gly Arg Ser Gly Arg Ser
1 5 10 15

Cys Arg Gly Gln Leu Val Gln Val Ser Arg Pro Glu Val Ser Ala Gly
20 25 30

136

Ser Leu Leu Leu Pro Ala Pro Gln Ala Glu Asp His Ser Ser Arg Ile
 35 40 45

Leu Tyr Pro Arg Pro Lys Ser Leu Leu Pro Lys Met Met Asn Ala Asp
 50 55 60

Met Asp Asp Leu Ser Ala Arg Val Asp Ala Val Lys Glu Glu Asn Leu
 65 70 75 80

Lys Leu Lys Ser Glu Asn Gln Val Leu Gly Gln Tyr Ile Glu Asn Leu
 85 90 95

Met Ser Ala Ser Ser Val Phe Gln Thr Thr Asp Thr Lys Ser Lys Arg
 100 105 110

Lys

<210> 144
 <211> 81
 <212> PRT
 <213> Homo sapien

<400> 144

Met Ala Pro Trp Ser Gly Lys Ala Arg Pro Thr Leu Phe Ser Pro Arg
 1 5 10 15

Ala Leu Cys Thr Arg Val Cys Cys Arg Cys Val Arg Gln Gly Gly Glu
 20 25 30

Asn Pro Gly Ala Arg Ala Ala Ser His Leu Leu Leu Gln Gly Leu Cys
 35 40 45

Gly Cys Val Ile Ser Trp Val Lys Ile Met Val Pro Gly Arg Glu Leu
 50 55 60

Asp Pro Ala Phe Pro Glu Asn Phe Trp Lys Asn Leu Lys Lys Glu Asn
 65 70 75 80

Ile

<210> 145
 <211> 126
 <212> PRT
 <213> Homo sapien

<400> 145

137

Phe Gly Thr Arg Gly Arg Arg Gly Ser Ser Phe Thr Ser Ala Gly Arg
1 5 10 15

Leu Glu Lys Pro Arg Asn Ser Ser Phe Phe Leu Pro Pro Pro Ser Leu
20 25 30

Arg Val Ser Val Leu Arg Arg Ala Leu Gly Ala Asn Arg Gly Ala Arg
35 40 45

Arg Gly Asp Arg Pro Pro Ser Leu Gly Gly Ala Arg Gly Leu Ala Ala
50 55 60

Thr Ala Gly Ala Ser Ala Pro Ala Arg Trp Val Ile Phe Ser Arg Val
65 70 75 80

Ala Arg Ala Gly Leu Arg Val Ser Leu Arg Arg Tyr Thr Arg Ala Glu
85 90 95

Tyr Glu Ser Glu Ala Glu Gly Val Met Gly Glu Ser Arg Val Ala Pro
100 105 110

Arg Pro Ala Gly Pro Gly Leu Ser Glu Ala Tyr Gly Asp Pro
115 120 125

<210> 146

<211> 126

<212> PRT

<213> Homo sapien

<400> 146

Met Tyr Ser Thr Val Ala Leu Pro Val Asp Asn Val Ile Thr Phe Ser
1 5 10 15

Phe Cys Phe Lys Thr Phe Leu Phe Leu Gln Ala Gly Gln Ala Phe Arg
20 25 30

Lys Phe Leu Pro Leu Phe Asp Arg Val Leu Val Glu Arg Ser Ala Ala
35 40 45

Glu Thr Val Thr Lys Gly Gly Ile Met Leu Pro Glu Lys Ser Gln Gly
50 55 60

Lys Val Leu Gln Ala Thr Val Val Ala Val Gly Ser Gly Ser Lys Gly
65 70 75 80

Lys Gly Gly Glu Ile Gln Pro Val Ser Val Lys Val Gly Asp Lys Val

138
 85 90 95
 Leu Leu Pro Glu Tyr Gly Gly Thr Lys Val Val Leu Asp Asp Lys Val
 100 105 110
 Cys Lys Leu Asn Asn Ser Lys Lys Lys Ser Asp Ile Cys Asn
 115 120 125
 <210> 147
 <211> 162
 <212> PRT
 <213> Homo sapien
 <400> 147
 Met Leu Tyr Met Ala Cys Val Ser Leu Leu Phe Ser Arg Arg His His
 1 5 10 15
 His Ser Cys Pro Leu Leu Glu Gly Ser Ile Ser Cys Trp Ser Gly Leu
 20 25 30
 His Lys Leu Ser Val Leu Ser Leu Val Leu Ala Ile Pro Leu Pro Gly
 35 40 45
 Gln Cys Asp Leu Arg Arg Val Glu Ala Gln Gly Pro Ala Pro Gln Gly
 50 55 60
 Gly Leu Met Val Arg Asp Gly Val Val Gly His Val Cys Leu Trp Gly
 65 70 75 80
 Val Arg Ala Leu Gln Arg Leu Leu Pro Val Leu Gln Val Ser Ala Glu
 85 90 95
 Pro Leu His Ala Arg Ala Leu Gln Val Gly Ser Asp Leu Leu Arg His
 100 105 110
 Thr Gly Arg Leu Pro Leu Ala Leu Gly Asp Leu Ser Arg Gly Val Arg
 115 120 125
 Arg Gly Pro Gly Ala Gln Val Leu Val Gln Gly Asp Val Ile Leu Ala
 130 135 140
 Val Val Gly Val Leu Val Met Pro Ala Glu Glu Ala Pro Val Arg Pro
 145 150 155 160
 His Val

139

<210> 148
 <211> 201
 <212> PRT
 <213> Homo sapien

<400> 148

Arg Asp Pro Leu Arg Leu His Pro Leu Asp Ser Gln Ala Ser Asn Asn
 1 5 10 15

Ala His Asp Gly Asp Gly Gly Leu Gly Arg Trp Leu Pro Ser Gln Gly
 20 25 30

Glu Gly Leu Arg Gln Pro Leu Met Leu Tyr Met Ala Cys Val Ser Leu
 35 40 45

Leu Phe Ser Arg Arg His His His Ser Cys Pro Leu Leu Glu Gly Ser
 50 55 60

Ile Ser Cys Trp Ser Gly Leu His Lys Leu Ser Val Leu Ser Leu Val
 65 70 75 80

Leu Ala Ile Pro Leu Pro Gly Gln Cys Asp Leu Arg Arg Val Glu Ala
 85 90 95

Gln Gly Pro Ala Pro Gln Gly Gly Leu Met Val Arg Asp Gly Val Val
 100 105 110

Gly His Val Cys Leu Trp Gly Val Arg Ala Leu Gln Arg Leu Leu Pro
 115 120 125

Val Leu Gln Val Ser Ala Glu Pro Leu His Ala Arg Ala Leu Gln Val
 130 135 140

Gly Ser His Leu Leu Arg His Thr Gly Arg Leu Pro Leu Ala Leu Gly
 145 150 155 160

Asp Leu Ser Arg Gly Val Arg Arg Gly Pro Gly Ala Gln Val Leu Val
 165 170 175

Gln Gly Asp Val Ile Leu Ala Val Val Gly Val Leu Val Met Pro Ala
 180 185 190

Glu Glu Ala Pro Val Arg Pro His Val
 195 200

<210> 149

140

<211> 168
 <212> PRT
 <213> Homo sapien

<400> 149

Met Arg Ser Gln Tyr Glu Val Met Ala Glu Gln Asn Arg Lys Asp Ala
 1 5 10 15

Glu Ala Trp Phe Thr Ser Arg Thr Glu Glu Leu Asn Arg Glu Val Ala
 20 25 30

Gly His Thr Glu Gln Leu Gln Met Ser Arg Ser Glu Val Thr Asp Leu
 35 40 45

Arg Arg Thr Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser
 50 55 60

Met Lys Ala Ala Leu Glu Asp Thr Leu Ala Glu Thr Glu Ala Arg Phe
 65 70 75 80

Gly Ala Gln Leu Ala His Ile Gln Ala Leu Ile Ser Gly Ile Glu Ala
 85 90 95

Gln Leu Gly Asp Val Arg Ala Asp Ser Glu Arg Gln Asn Gln Glu Tyr
 100 105 110

His Thr Ser Gly Ser Trp Thr Ser Ser Arg Gly Trp Ser Arg Arg Leu
 115 120 125

Pro Pro Thr Ala Ala Cys Ser Arg Asp Arg Lys Ile Thr Thr Thr Ile
 130 135 140

Cys Leu Pro Pro Arg Ser Ser Glu Ala Ala Gly Ser Gly Ala Ser Ala
 145 150 155 160

Val Leu Trp Arg Val Ser Ser Gly
 165

<210> 150
 <211> 194
 <212> PRT
 <213> Homo sapien

<400> 150

His Ala Arg Ala Ala Leu Cys Asp Gly Cys Val Val Ala Ala Glu Ile
 1 5 10 15

141

Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu Val Asp
 20 25 30

Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met Arg Ser
 35 40 45

Gln Tyr Glu Val Met Ala Glu Gln Asn Arg Lys Asp Ala Glu Ala Trp
 50 55 60

Phe Thr Ser Arg Thr Glu Glu Leu Asn Arg Glu Val Ala Gly His Thr
 65 70 75 80

Glu Gln Leu Gln Met Ser Arg Ser Glu Val Thr Asp Leu Arg Arg Thr
 85 90 95

Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys Ala
 100 105 110

Ala Leu Glu Asp Thr Leu Ala Glu Thr Glu Ala Arg Phe Gly Ala Gln
 115 120 125

Leu Ala His Ile Gln Ala Leu Ile Ser Gly Ile Glu Ala Gln Leu Gly
 130 135 140

Asp Val Arg Ala Asp Ser Glu Arg Gln Asn Gln Glu Tyr Gln Arg Leu
 145 150 155 160

Met Asp Ile Lys Ser Arg Leu Glu Gln Glu Ile Ala Thr Tyr Arg Ser
 165 170 175

Leu Leu Glu Gly Gln Glu Asp His Tyr Asn Asn Leu Ser Ala Ser Lys
 180 185 190

Val Leu

<210> 151
 <211> 265
 <212> PRT
 <213> Homo sapien

<400> 151

Met Thr Ser Tyr Ser Tyr Arg Gln Ser Ser Ala Thr Ser Ser Phe Gly
 1 5 10 15

Gly Leu Gly Gly Gly Ser Val Arg Phe Gly Pro Gly Val Ala Phe Arg
 20 25 30

142

Ala Pro Ser Ile His Gly Gly Ser Gly Gly Arg Gly Val Ser Val Ser
 35 40 45

Ser Ala Arg Phe Val Ser Ser Ser Ser Ser Gly Gly Tyr Gly Gly Gly
 50 55 60

Tyr Gly Gly Val Leu Thr Ala Ser Asp Gly Leu Leu Ala Gly Asn Glu
 65 70 75 80

Lys Leu Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp
 85 90 95

Lys Val Arg Ala Leu Glu Ala Ala Asn Gly Glu Leu Glu Val Lys Ile
 100 105 110

Arg Asp Trp Tyr Gln Lys Gln Gly Pro Gly Pro Ser Arg Asp Tyr Ser
 115 120 125

His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys Ile Leu Gly Ala
 130 135 140

Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu
 145 150 155 160

Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
 165 170 175

Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu
 180 185 190

Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu Gly Leu Lys
 195 200 205

Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Ile Ser Thr
 210 215 220

Leu Arg Trp Gly Pro Gln Arg Val Gly Gly Asn Gly Gly Pro Arg Val
 225 230 235 240

Pro Arg Cys Trp Thr Val Asp Pro Leu Gly His Asp Leu Ala Asp Leu
 245 250 255

Ser Asp Met Arg Ala Tyr Glu Ser Cys
 260 265

143

<210> 152
 <211> 69
 <212> PRT
 <213> Homo sapien

<400> 152

Cys Arg Ala Ala Gln Cys Asp Gly Ser Ala Ala Arg Ala Gly Thr Ser
 1 5 10 15

Gly Ser Trp Thr Ser Ser Arg Gly Trp Ser Arg Arg Leu Pro Pro Thr
 20 25 30

Ala Ala Cys Ser Arg Asp Arg Lys Ile Thr Thr Thr Ile Cys Leu Pro
 35 40 45

Pro Arg Ser Ser Glu Ala Ala Gly Ser Gly Ala Ser Ala Val Leu Trp
 50 55 60

Arg Val Ser Ser Gly
 65

<210> 153
 <211> 79
 <212> PRT
 <213> Homo sapien

<400> 153

Trp Ile Gly Arg Pro Gly Arg Ala Ala His Gly His Gln Val Ala Ala
 1 5 10 15

Gly Ala Gly Asp Cys His Leu Pro Gln Pro Ala Arg Gly Thr Gly Arg
 20 25 30

Ser Leu Gln Gln Phe Val Cys Leu Gln Gly Pro Leu Arg Gln Gln Ala
 35 40 45

Leu Gly Leu Leu Leu Ser Phe Gly Gly Cys Leu Leu Gly Arg Gly Met
 50 55 60

Gly Arg Lys Gly Pro Leu Pro Pro Ala Leu Leu Leu Thr Cys Gln
 65 70 75

<210> 154
 <211> 56
 <212> PRT
 <213> Homo sapien

<400> 154

144

Arg Pro Pro Thr Thr Thr Thr Ala Arg Ile Gln Ala Ser Asn Asp Val
 1 5 10 15

Arg Gly Tyr Gln Arg Leu Met Asp Ile Lys Ser Arg Leu Glu Gln Glu
 20 25 30

Ile Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Glu Asp His Tyr Asn
 35 40 45

Asn Leu Ser Ala Ser Lys Val Leu
 50 55

<210> 155
 <211> 90
 <212> PRT
 <213> Homo sapien

<400> 155

Arg Pro Pro Thr Thr Thr Thr Ala Arg Ile Gln Ala Ser Asn Asp Val
 1 5 10 15

Arg Gly Ala Ala His Gly His Gln Val Ala Ala Gly Ala Gly Asp Cys
 20 25 30

His Leu Pro Gln Pro Ala Arg Gly Thr Gly Arg Ser Leu Gln Gln Phe
 35 40 45

Val Cys Leu Gln Gly Pro Leu Arg Gln Gln Ala Leu Gly Leu Leu Leu
 50 55 60

Ser Phe Gly Gly Cys Leu Leu Gly Arg Gly Met Gly Arg Lys Gly Pro
 65 70 75 80

Leu Pro Pro Ala Leu Leu Leu Thr Cys Gln
 85 90

<210> 156
 <211> 315
 <212> PRT
 <213> Homo sapien

<400> 156

Met Thr Ser Tyr Ser Tyr Arg Gln Ser Ser Ala Thr Ser Ser Phe Gly
 1 5 10 15

Gly Leu Gly Gly Gly Ser Val Arg Phe Gly Pro Gly Val Ala Phe Arg
 20 25 30

145

Ala Pro Ser Ile His Gly Gly Ser Gly Gly Arg Gly Val Ser Val Ser
35 40 45

Ser Ala Arg Phe Val Ser Ser Ser Ser Ser Gly Gly Tyr Gly Gly Gly
50 55 60

Tyr Gly Gly Val Leu Thr Ala Ser Asp Gly Leu Leu Ala Gly Asn Glu
65 70 75 80

Lys Leu Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp
85 90 95

Lys Val Arg Ala Leu Glu Ala Ala Asn Gly Glu Leu Glu Val Lys Ile
100 105 110

Arg Asp Trp Tyr Gln Lys Gln Gly Pro Gly Pro Ser Arg Asp Tyr Ser
115 120 125

His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys Ile Leu Gly Ala
130 135 140

Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu
145 150 155 160

Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
165 170 175

Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu
180 185 190

Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu Gly Leu Lys
195 200 205

Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Ile Ser Thr
210 215 220

Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu Val Asp Ser Ala
225 230 235 240

Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met Arg Ser Gln Tyr
245 250 255

Glu Val Met Ala Glu Gln Asn Arg Lys Asp Ala Glu Ala Trp Phe Thr
260 265 270

146

Ser Ser Ala Thr Ser Ser Phe Gly Gly Leu Gly Gly Gly Ser Val Arg
35 40 45

147

Phe Gly Pro Gly Val Ala Phe Arg Ala Pro Ser Ile His Gly Gly Ser
 50 55 60

Gly Gly Arg Gly Val Ser Val Ser Ser Ala Arg Phe Val Ser Ser Ser
 65 70 75 80

Ser Ser Gly Gly Tyr Gly Gly Gly Tyr Gly Gly Val Leu Thr Ala Ser
 85 90 95

Asp Gly Leu Leu Ala Gly Asn Glu Lys Leu Thr Met Gln Asn Leu Asn
 100 105 110

Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Ala Ala
 115 120 125

Asn Gly Glu Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln Lys Gln Gly
 130 135 140

Pro Gly Pro Ser Arg Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp
 145 150 155 160

Leu Arg Asp Lys Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val
 165 170 175

Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys
 180 185 190

Phe Glu Thr Glu Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn
 195 200 205

Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu
 210 215 220

Glu Met Gln Ile Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys
 225 230 235 240

Asn His Glu Glu Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln
 245 250 255

Val Ser Val Glu Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile
 260 265 270

Leu Ser Asp Met Arg Ser Gln Tyr Glu Val Met Ala Glu Gln Asn Arg
 275 280 285

148

Lys Asp Ala Glu Ala Trp Phe Thr Ser Arg Leu Lys Ile Asp Gly Xaa
 290 295 300

Xaa Ala His Xaa Xaa Pro Lys Xaa Xaa Arg Xaa Xaa Xaa Ala Pro Arg
 305 310 315 320

Leu Arg Gly Ala His Arg Ala Val Thr Pro Lys Gly Val Ala Ser Ile
 325 330 335

Arg Arg

<210> 158
 <211> 266
 <212> PRT
 <213> Homo sapien

<400> 158

Met Leu Arg Lys Leu Cys Leu Ala Ala Thr Ile Ser Phe Glu Arg Phe
 1 5 10 15

Glu Thr Glu Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly
 20 25 30

Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu
 35 40 45

Met Gln Ile Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn
 50 55 60

His Glu Glu Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val
 65 70 75 80

Ser Val Glu Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu
 85 90 95

Ser Asp Met Arg Ser Gln Tyr Glu Val Met Ala Glu Gln Asn Arg Lys
 100 105 110

Asp Ala Glu Ala Trp Phe Thr Ser Arg Thr Glu Glu Leu Asn Arg Glu
 115 120 125

Val Ala Gly His Thr Glu Gln Leu Gln Met Ser Arg Ser Glu Val Thr
 130 135 140

Asp Leu Arg Arg Thr Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser Gln
 145 150 155 160

149

Leu Ser Met Lys Ala Ala Leu Glu Asp Thr Leu Ala Glu Thr Glu Ala
 165 170 175

Arg Phe Gly Ala Gln Leu Ala His Ile Gln Ala Leu Ile Ser Gly Ile
 180 185 190

Glu Ala Gln Leu Gly Asp Val Arg Ala Asp Ser Glu Arg Gln Asn Gln
 195 200 205

Glu Tyr His Thr Ser Gly Ser Trp Thr Ser Ser Arg Gly Trp Ser Arg
 210 215 220

Arg Leu Pro Pro Thr Ala Ala Cys Ser Arg Asp Arg Lys Ile Thr Thr
 225 230 235 240

Thr Ile Cys Leu Pro Pro Arg Ser Ser Glu Ala Ala Gly Ser Gly Ala
 245 250 255

Ser Ala Val Leu Trp Arg Val Ser Ser Gly
 260 265

<210> 159
 <211> 263
 <212> PRT
 <213> Homo sapien

<400> 159

Pro Pro Tyr Gly Leu Leu Asn Ser Gly Glu Val Gly Lys Ser Ser Glu
 1 5 10 15

Met Leu Arg Lys Leu Cys Leu Ala Ala Thr Ile Ser Phe Glu Arg Phe
 20 25 30

Glu Thr Glu Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly
 35 40 45

Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu
 50 55 60

Met Gln Ile Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn
 65 70 75 80

His Glu Glu Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val
 85 90 95

150

Ser Val Glu Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu
 100 105 110

Ser Asp Met Arg Ser Gln Tyr Glu Val Met Ala Glu Gln Asn Arg Lys
 115 120 125

Asp Ala Glu Ala Trp Phe Thr Ser Arg Thr Glu Glu Leu Asn Arg Glu
 130 135 140

Val Ala Gly His Thr Glu Gln Leu Gln Met Ser Arg Ser Glu Val Thr
 145 150 155 160

Asp Leu Arg Arg Thr Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser Gln
 165 170 175

Leu Ser Met Lys Ala Ala Leu Glu Asp Thr Leu Ala Glu Thr Glu Ala
 180 185 190

Arg Phe Gly Ala Gln Leu Ala His Ile Gln Ala Leu Ile Ser Gly Ile
 195 200 205

Glu Ala Gln Leu Gly Asp Val Arg Ala Asp Ser Glu Arg Gln Asn Gln
 210 215 220

Glu Tyr Gln Arg Leu Met Asp Ile Lys Ser Arg Leu Glu Gln Glu Ile
 225 230 235 240

Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Glu Asp His Tyr Asn Asn
 245 250 255

Leu Ser Ala Ser Lys Val Leu
 260

<210> 160
 <211> 107
 <212> PRT
 <213> Homo sapien

<400> 160

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
 1 5 10 15

Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
 20 25 30

His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
 35 40 45

151

Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu
 50 55 60

Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
 65 70 75 80

Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
 85 90 95

Glu Ser Arg His Val Ser Ser Ile Met Glu Val
 100 105

<210> 161
 <211> 41
 <212> PRT
 <213> Homo sapien

<400> 161

Met Asp Gly Arg Pro Gly Arg Tyr Tyr Thr Glu Phe Thr Pro Thr Glu
 1 5 10 15

Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro
 20 25 30

Lys Ile Val Lys Trp Asp Arg Asp Met
 35 40

<210> 162
 <211> 47
 <212> PRT
 <213> Homo sapien

<400> 162

Ala Ala Ser Trp Arg Phe Glu Asp Ala Ala Phe Gly Leu Asp Glu Phe
 1 5 10 15

Gln Ile Leu Leu Ala Cys Phe Leu Ile Leu Ile Cys Leu Tyr Thr Tyr
 20 25 30

Thr Leu Cys Thr Lys Cys Arg Val Ile Ile Met Leu Thr Trp Thr
 35 40 45

<210> 163
 <211> 257
 <212> PRT
 <213> Homo sapien

152

<400> 163

Met Ser Gly Glu Glu Asn Pro Ala Ser Lys Pro Thr Pro Val Gln Asp
 1 5 10 15

Val Gln Gly Asp Gly Arg Trp Met Ser Leu His His Arg Phe Val Ala
 20 25 30

Asp Ser Lys Asp Lys Glu Pro Glu Val Val Phe Ile Gly Asp Ser Leu
 35 40 45

Val Gln Leu Met His Gln Cys Glu Ile Trp Arg Glu Leu Phe Ser Pro
 50 55 60

Leu His Ala Leu Asn Phe Gly Ile Gly Gly Asp Gly Thr Gln His Val
 65 70 75 80

Leu Trp Arg Leu Glu Asn Gly Glu Leu Glu His Ile Arg Pro Lys Val
 85 90 95

Ser Gly Ala Trp Val Gly Leu Tyr Asn Ile Phe Trp Leu Pro Pro His
 100 105 110

Arg Cys Phe Met Ser Leu Phe Pro Gln Ile Val Val Val Trp Val Gly
 115 120 125

Thr Asn Asn His Gly His Thr Ala Glu Gln Val Thr Gly Gly Ile Lys
 130 135 140

Ala Ile Val Gln Leu Val Asn Glu Arg Gln Pro Gln Ala Arg Val Val
 145 150 155 160

Val Leu Gly Leu Leu Pro Arg Gly Gln His Pro Asn Pro Leu Arg Glu
 165 170 175

Lys Asn Arg Gln Val Asn Glu Leu Val Arg Ala Ala Leu Ala Gly His
 180 185 190

Pro Arg Ala His Phe Leu Asp Ala Asp Pro Gly Phe Val His Ser Asp
 195 200 205

Gly Thr Ile Ser His His Asp Met Tyr Asp Tyr Leu His Leu Ser Arg
 210 215 220

Leu Gly Tyr Thr Pro Val Cys Arg Ala Leu His Ser Leu Leu Leu Arg
 225 230 235 240

153

Leu Leu Ala Gln Asp Gln Gly Gln Gly Ala Pro Leu Leu Glu Pro Ala
 245 250 255

Pro

<210> 164
 <211> 292
 <212> PRT
 <213> Homo sapien

<400> 164

Met Ala Ala Thr Ser Leu Met Ser Ala Leu Ala Ala Arg Leu Leu Gln
 1 5 10 15

Pro Ala His Ser Cys Ser Leu Arg Leu Arg Pro Phe His Leu Ala Ala
 20 25 30

Val Arg Asn Glu Ala Val Val Ile Ser Gly Arg Lys Leu Ala Gln Gln
 35 40 45

Ile Lys Gln Glu Val Arg Gln Glu Val Glu Glu Trp Val Ala Ser Gly
 50 55 60

Asn Lys Arg Pro His Leu Ser Val Ile Leu Val Gly Glu Asn Pro Ala
 65 70 75 80

Ser His Ser Tyr Val Leu Asn Lys Thr Arg Ala Ala Ala Val Val Gly
 85 90 95

Ile Asn Ser Glu Thr Ile Met Lys Pro Ala Ser Ile Ser Glu Glu Glu
 100 105 110

Leu Leu Asn Leu Ile Asn Lys Leu Asn Asn Asp Asp Asn Val Asp Gly
 115 120 125

Leu Leu Val Gln Leu Pro Leu Pro Glu His Ile Asp Glu Arg Arg Ile
 130 135 140

Cys Asn Ala Val Ser Pro Asp Lys Asp Val Asp Gly Phe His Val Ile
 145 150 155 160

Asn Val Gly Arg Met Cys Leu Asp Gln Tyr Ser Met Leu Pro Ala Thr
 165 170 175

Pro Trp Gly Val Trp Glu Ile Ile Lys Arg Thr Gly Ile Pro Thr Leu

154

180

185

190

Gly Lys Asn Val Val Val Ala Gly Arg Ser Lys Asn Val Gly Met Pro
 195 200 205

Ile Ala Met Leu Leu His Thr Asp Gly Ala His Glu Arg Pro Gly Gly
 210 215 220

Asp Ala Thr Val Thr Ile Ser His Arg Tyr Thr Pro Lys Glu Gln Leu
 225 230 235 240

Lys Lys His Thr Ile Leu Ala Asp Ile Val Ile Ser Ala Ala Gly Met
 245 250 255

Ser Leu Gln Leu Leu Phe Gln Ser Ile Ile Asp Glu Arg Arg Ile Cys
 260 265 270

Asn Ala Val Ser Pro Asp Lys Asp Val Asp Gly Phe His Val Ile Thr
 275 280 285

Val Gly Arg Met
 290

<210> 165
 <211> 307
 <212> PRT
 <213> Homo sapien

<400> 165

Tyr Asn Arg Val Ala Arg Ala Arg Ala Ser Leu Pro Ala Gln Ser Pro
 1 5 10 15

Ala Arg Ser Met Ala Ala Thr Ser Leu Met Ser Ala Leu Ala Ala Arg
 20 25 30

Leu Leu Gln Pro Ala His Ser Cys Ser Leu Arg Leu Arg Pro Phe His
 35 40 45

Leu Ala Ala Val Arg Asn Glu Ala Val Val Ile Ser Gly Arg Lys Leu
 50 55 60

Ala Gln Gln Ile Lys Gln Glu Val Arg Gln Glu Val Glu Glu Trp Val
 65 70 75 80

Ala Ser Gly Asn Lys Arg Pro His Leu Ser Val Ile Leu Val Gly Glu
 85 90 95

155

Asn Pro Ala Ser His Ser Tyr Val Leu Asn Lys Thr Arg Ala Ala Ala
 100 105 110

Val Val Gly Ile Asn Ser Glu Thr Ile Met Lys Pro Ala Ser Ile Ser
 115 120 125

Glu Glu Glu Leu Leu Asn Leu Ile Asn Lys Leu Asn Asn Asp Asp Asn
 130 135 140

Val Asp Gly Leu Leu Val Gln Leu Pro Leu Pro Glu His Ile Asp Glu
 145 150 155 160

Arg Arg Ile Cys Asn Ala Val Ser Pro Asp Lys Asp Val Asp Gly Phe
 165 170 175

His Val Ile Asn Val Gly Arg Met Cys Leu Asp Gln Tyr Ser Met Leu
 180 185 190

Pro Ala Thr Pro Trp Gly Val Trp Glu Ile Ile Lys Arg Thr Gly Ile
 195 200 205

Pro Thr Leu Gly Lys Asn Val Val Val Ala Gly Arg Ser Lys Asn Val
 210 215 220

Gly Met Pro Ile Ala Met Leu Leu His Thr Asp Gly Ala His Glu Arg
 225 230 235 240

Pro Gly Gly Asp Ala Thr Val Thr Ile Ser His Arg Tyr Thr Pro Lys
 245 250 255

Glu Gln Leu Lys Lys His Thr Ile Leu Ala Asp Ile Val Ile Ser Ala
 260 265 270

Ala Gly Met Ser Leu Gln Leu Leu Phe Gln Ser Ile Leu Met Arg Glu
 275 280 285

Gly Ser Ala Met Leu Phe Leu Gln Thr Arg Met Leu Met Ala Phe Met
 290 295 300

Leu Leu Leu
 305

<210> 166
 <211> 207
 <212> PRT
 <213> Homo sapien

156

<400> 166

Met Asp Arg Gly Glu Gln Gly Leu Leu Arg Thr Asp Pro Val Pro Glu
 1 5 10 15

Glu Gly Glu Asp Val Ala Ala Thr Ile Ser Ala Thr Glu Thr Leu Ser
 20 25 30

Glu Glu Glu Gln Glu Glu Leu Arg Arg Glu Leu Ala Lys Val Glu Glu
 35 40 45

Glu Ile Gln Thr Leu Ser Gln Val Leu Ala Ala Lys Glu Lys His Leu
 50 55 60

Ala Glu Ile Lys Arg Lys Leu Gly Ile Asn Ser Leu Gln Glu Leu Lys
 65 70 75 80

Gln Asn Ile Ala Lys Gly Trp Gln Asp Val Thr Ala Thr Ser Ala Tyr
 85 90 95

Lys Lys Thr Ser Glu Thr Leu Ser Gln Ala Gly Gln Lys Ala Ser Ala
 100 105 110

Ala Phe Ser Ser Val Gly Ser Val Ile Thr Lys Lys Leu Glu Asp Val
 115 120 125

Lys Leu Gln Ala Phe Ser His Ser Phe Ser Ile Arg Ser Ile Gln His
 130 135 140

Ser Ile Ser Met Pro Ala Met Arg Asn Ser Pro Thr Phe Lys Ser Phe
 145 150 155 160

Glu Glu Lys Val Glu Asn Leu Lys Ser Lys Val Gly Gly Thr Lys Pro
 165 170 175

Ala Gly Gly Asp Phe Gly Glu Val Leu Asn Ser Ala Ala Asn Ala Ser
 180 185 190

Ala Thr Thr Thr Glu Pro Leu Pro Glu Lys Thr Gln Glu Ser Leu
 195 200 205

<210> 167

<211> 81

<212> PRT

<213> Homo sapien

<400> 167

157

Ser Leu Leu Gly Arg Arg Arg Lys Leu His Leu Pro Asp Pro Asp Leu
 1 5 10 15

Ala Ser Trp Gly Pro Gly Arg Ser Gly Ser Gly Gly Gly Arg Trp Asp
 20 25 30

Cys Met Cys Glu Cys Glu Cys Ala Cys Val Gly Glu Arg Glu Arg Arg
 35 40 45

Phe Trp Glu Val Ala Lys Gly Leu Ala Ser Gly Ala Gly Gly Arg Asp
 50 55 60

Ala Leu Trp Val Glu Ser Arg Val Lys Gly Ala Arg Arg Ser Gln Leu
 65 70 75 80

Leu

<210> 168
 <211> 154
 <212> PRT
 <213> Homo sapien

<400> 168

Val Ala Leu Val Pro Pro Gly Leu Leu Arg Thr Asp Pro Val Pro Glu
 1 5 10 15

Glu Gly Glu Asp Val Ala Ala Thr Ile Ser Ala Thr Glu Thr Leu Ser
 20 25 30

Glu Glu Glu Gln Glu Glu Leu Arg Arg Glu Leu Ala Lys Val Glu Glu
 35 40 45

Glu Ile Gln Thr Leu Ser Gln Val Leu Ala Ala Lys Glu Lys His Leu
 50 55 60

Ala Glu Ile Lys Arg Lys Leu Gly Ile Asn Ser Leu Gln Glu Leu Lys
 65 70 75 80

Gln Asn Ile Ala Lys Gly Trp Gln Asp Val Thr Ala Thr Ser Ala Tyr
 85 90 95

Lys Lys Thr Ser Glu Thr Leu Ser Gln Ala Gly Gln Lys Ala Ser Ala
 100 105 110

Ala Phe Ser Ser Val Gly Ser Val Ile Thr Lys Lys Leu Glu Asp Val

158

115

120

125

Lys Asn Ser Pro Thr Phe Lys Ser Phe Glu Glu Lys Val Glu Asn Leu
 130 135 140

Lys Ala Ser Arg Glu Met Asn Arg Val Phe
 145 150

<210> 169
 <211> 178
 <212> PRT
 <213> Homo sapien

<400> 169

Gly Gly Trp Val Thr Pro Gln Glu Ser Ala Pro Gly Arg Gly Arg Ala
 1 5 10 15

Ala Pro Pro Arg Pro Thr Pro Leu Gly Val Gly Thr Ser Arg Glu Ser
 20 25 30

Pro Ala Glu Ala Arg Arg Ser Ser Ala Arg Arg Gly Gly Arg Ser Glu
 35 40 45

Pro Gly Arg Ala Ala Gly Gly Gly Ala Ala Glu Asp Thr Arg Arg Arg
 50 55 60

Ala Gly Asp Met Asp Arg Gly Glu Gln Gly Leu Leu Arg Thr Asp Pro
 65 70 75 80

Val Pro Glu Glu Gly Glu Asp Val Ala Ala Thr Ile Ser Ala Thr Glu
 85 90 95

Thr Leu Ser Glu Glu Glu Gln Glu Glu Leu Arg Arg Glu Leu Ala Lys
 100 105 110

Val Glu Glu Glu Ile Gln Thr Leu Ser Gln Val Leu Ala Ala Lys Glu
 115 120 125

Lys His Leu Ala Glu Ile Lys Arg Lys Leu Gly Ile Asn Ser Leu Gln
 130 135 140

Glu Leu Lys Gln Asn Ile Ala Lys Gly Trp Gln Asp Val Thr Ala Thr
 145 150 155 160

Ser Ala Arg Ser Lys Leu Leu Ala Ala Glu Thr Glu Leu Leu Cys Leu
 165 170 175

159

Leu Tyr

<210> 170
 <211> 138
 <212> PRT
 <213> Homo sapien
 <400> 170

Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val
 1 5 10 15

Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser
 20 25 30

Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser
 35 40 45

Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr
 50 55 60

Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu
 65 70 75 80

Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp
 85 90 95

Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala
 100 105 110

Asp Val Gly Tyr Tyr Ser Trp Arg Cys Pro Lys Pro Leu Arg Thr Tyr
 115 120 125

Glu Val Pro Ser Ser Ile Arg Ser Cys Gln
 130 135

<210> 171
 <211> 187
 <212> PRT
 <213> Homo sapien

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> X=any amino acid

<220>
 <221> MISC_FEATURE

160

<222> (174)..(174)

<223> X=any amino acid

<400> 171

Tyr Ile Gln Ser Cys Ser Val Pro His Arg Phe Ala Xaa Pro Arg Lys
 1 5 10 15

Val Ala Ser Ala Ser Ala Ala Ala Ser Thr Leu Ser Glu Pro Pro Arg
 20 25 30

Arg Thr Gln Glu Ser Arg Thr Arg Thr Arg Ala Leu Gly Leu Pro Thr
 35 40 45

Leu Pro Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg
 50 55 60

Pro Val Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe
 65 70 75 80

Arg Ser Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr
 85 90 95

Tyr Ser Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp
 100 105 110

Arg Thr Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro
 115 120 125

Ala Glu Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys
 130 135 140

Trp Asp Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val
 145 150 155 160

Asn Ala Asp Val Gly Tyr Tyr Ser Trp Ser Val Pro Ser Xaa Cys Glu
 165 170 175

Pro Met Arg Tyr Arg Ala Arg Phe Asp His Val
 180 185

<210> 172

<211> 201

<212> PRT

<213> Homo sapien

<400> 172

161

Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val
 1 5 10 15

Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser
 20 25 30

Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser
 35 40 45

Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr
 50 55 60

Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu
 65 70 75 80

Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp
 85 90 95

Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala
 100 105 110

Asp Val Gly Tyr Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys Asn Arg
 115 120 125

Asp Val Ile Thr Leu Arg Ser Trp Leu Pro Met Gly Ala Asp Tyr Ile
 130 135 140

Ile Met Asn Tyr Ser Val Lys His Pro Lys Tyr Pro Pro Arg Lys Asp
 145 150 155 160

Leu Val Arg Ala Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr
 165 170 175

Gly Pro Lys Ser Cys Val Ile Thr Tyr Leu Gly Pro Gly Gly Pro Gln
 180 185 190

Arg Leu Leu Thr Gln Val Gly Gly Glu
 195 200

<210> 173

<211> 387

<212> PRT

<213> Homo sapien

<400> 173

Gln Pro Gly Lys Ser Arg Ala Ala Ala Ala Glu Pro Pro Ser Pro Arg
 1 5 10 15

162

Ala Pro Ser Leu Ala Gly Arg Gly Ala Arg Gly Trp Gly Pro Gly Arg
 20 25 30

Gly Arg Ala Ala Gly Pro Thr Ala Pro Pro Thr Arg Ala Pro Ala Arg
 35 40 45

Pro Arg Val Ser Arg Ala Ala Ala Ala Ala Ala Leu Ala Pro Arg Pro
 50 55 60

Arg Arg Ala Pro Ala Glu Arg Arg Ala Lys Val Pro Gly Arg Trp Arg
 65 70 75 80

Gln His Leu Gln Pro Arg Arg Arg Cys Arg Ser Leu Pro Thr Leu Pro
 85 90 95

Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val
 100 105 110

Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser
 115 120 125

Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser
 130 135 140

Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr
 145 150 155 160

Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu
 165 170 175

Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp
 180 185 190

Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala
 195 200 205

Asp Val Gly Tyr Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys Asn Arg
 210 215 220

Asp Val Ile Thr Leu Arg Ser Trp Leu Pro Met Gly Ala Asp Tyr Ile
 225 230 235 240

Ile Met Asn Tyr Ser Val Lys His Pro Lys Tyr Pro Pro Arg Lys Asp
 245 250 255

163

Leu Val Arg Ala Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr
 260 265 270

Gly Pro Lys Ser Cys Val Ile Thr Tyr Leu Ala Gln Val Asp Pro Lys
 275 280 285

Gly Ser Leu Pro Lys Trp Val Val Asn Lys Ser Ser Gln Phe Leu Ala
 290 295 300

Pro Lys Ala Met Lys Lys Met Tyr Lys Ala Cys Leu Lys Tyr Pro Glu
 305 310 315 320

Trp Lys Gln Lys His Leu Pro His Phe Lys Pro Trp Leu His Pro Glu
 325 330 335

Gln Ser Pro Leu Pro Ser Leu Ala Leu Ser Glu Leu Ser Val Gln His
 340 345 350

Ala Asp Ser Leu Glu Asn Ile Asp Glu Ser Ala Val Ala Glu Ser Arg
 355 360 365

Glu Glu Arg Met Gly Gly Ala Gly Gly Glu Gly Ser Asp Asp Asp Thr
 370 375 380

Ser Leu Thr
 385

<210> 174
 <211> 224
 <212> PRT
 <213> Homo sapien

<400> 174

Met Val Pro Gly Arg Trp Arg Gln His Leu Gln Pro Arg Arg Arg Cys
 1 5 10 15

Arg Ser Leu Pro Thr Leu Pro Met Glu Lys Leu Ala Ala Ser Thr Glu
 20 25 30

Pro Gln Gly Pro Arg Pro Val Leu Gly Arg Glu Ser Val Gln Val Pro
 35 40 45

Asp Asp Gln Asp Phe Arg Ser Phe Arg Ser Glu Cys Glu Ala Glu Val
 50 55 60

Gly Trp Asn Leu Thr Tyr Ser Arg Ala Gly Val Ser Val Trp Val Gln

164

65	70	75	80
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Ala Val Glu Met Asp Arg Thr Leu His Lys Ile Lys Cys Arg Met Glu
 85 90 95

Cys Cys Asp Val Pro Ala Glu Thr Leu Tyr Asp Val Leu His Asp Ile
 100 105 110

Glu Tyr Arg Lys Lys Trp Asp Ser Asn Val Ile Glu Thr Phe Asp Ile
 115 120 125

Ala Arg Leu Thr Val Asn Ala Asp Val Gly Tyr Tyr Ser Trp Arg Cys
 130 135 140

Pro Lys Pro Leu Lys Asn Arg Asp Val Ile Thr Leu Arg Ser Trp Leu
 145 150 155 160

Pro Met Gly Ala Asp Tyr Ile Ile Met Asn Tyr Ser Val Lys His Pro
 165 170 175

Lys Tyr Pro Pro Arg Lys Asp Leu Val Arg Ala Val Ser Ile Gln Thr
 180 185 190

Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser Cys Val Ile Thr Tyr
 195 200 205

Leu Gly Pro Gly Gly Pro Gln Arg Leu Leu Thr Gln Val Gly Gly Glu
 210 215 220

<210> 175
 <211> 314
 <212> PRT
 <213> Homo sapien

<400> 175

Met Val Pro Gly Arg Trp Arg Gln His Leu Gln Pro Arg Arg Arg Cys
 1 5 10 15

Arg Ser Leu Pro Thr Leu Pro Met Glu Lys Leu Ala Ala Ser Thr Glu
 20 25 30

Pro Gln Gly Pro Arg Pro Val Leu Gly Arg Glu Ser Val Gln Val Pro
 35 40 45

Asp Asp Gln Asp Phe Arg Ser Phe Arg Ser Glu Cys Glu Ala Glu Val
 50 55 60

165

Gly Trp Asn Leu Thr Tyr Ser Arg Ala Gly Val Ser Val Trp Val Gln
 65 70 75 80

Ala Val Glu Met Asp Arg Thr Leu His Lys Ile Lys Cys Arg Met Glu
 85 90 95

Cys Cys Asp Val Pro Ala Glu Thr Leu Tyr Asp Val Leu His Asp Ile
 100 105 110

Glu Tyr Arg Lys Lys Trp Asp Ser Asn Val Ile Glu Thr Phe Asp Ile
 115 120 125

Ala Arg Leu Thr Val Asn Ala Asp Val Gly Tyr Tyr Ser Trp Arg Cys
 130 135 140

Pro Lys Pro Leu Lys Asn Arg Asp Val Ile Thr Leu Arg Ser Trp Leu
 145 150 155 160

Pro Met Gly Ala Asp Tyr Ile Ile Met Asn Tyr Ser Val Lys His Pro
 165 170 175

Lys Tyr Pro Pro Arg Lys Asp Leu Val Arg Ala Val Ser Ile Gln Thr
 180 185 190

Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser Cys Val Ile Thr Tyr
 195 200 205

Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro Lys Trp Val Val Asn
 210 215 220

Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met Lys Lys Met Tyr Lys
 225 230 235 240

Ala Cys Leu Lys Tyr Pro Glu Trp Lys Gln Lys His Leu Pro His Phe
 245 250 255

Lys Pro Trp Leu His Pro Glu Gln Ser Pro Leu Pro Ser Leu Ala Leu
 260 265 270

Ser Glu Leu Ser Val Gln His Ala Asp Ser Leu Glu Asn Ile Asp Glu
 275 280 285

Ser Ala Val Ala Glu Ser Arg Glu Glu Arg Met Gly Gly Ala Gly Gly
 290 295 300

166

Glu Gly Ser Asp Asp Asp Thr Ser Leu Thr
305 310

<210> 176
<211> 341
<212> PRT
<213> Homo sapien

<400> 176

Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val
1 5 10 15

Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser
20 25 30

Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser
35 40 45

Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr
50 55 60

Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu
65 70 75 80

Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp
85 90 95

Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala
100 105 110

Asp Val Gly Tyr Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys Asn Arg
115 120 125

Asp Val Ile Thr Leu Arg Ser Trp Leu Pro Met Gly Ala Asp Tyr Ile
130 135 140

Ile Met Asn Tyr Ser Val Lys His Pro Lys Tyr Pro Pro Arg Lys Asp
145 150 155 160

Leu Val Arg Ala Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr
165 170 175

Gly Pro Lys Ser Cys Val Ile Thr Tyr Leu Gly Pro Gly Gly Pro Gln
180 185 190

Ser Ser Leu Pro Lys Trp Val Val Arg Leu Leu Pro Arg Cys Pro Ala
195 200 205

167

Pro Arg Met Arg Leu Leu Val Leu Leu Trp Gly Cys Leu Leu Leu Pro
 210 215 220

Gly Tyr Glu Ala Leu Glu Gly Pro Glu Glu Ile Ser Gly Phe Glu Gly
 225 230 235 240

Asp Thr Val Ser Leu Gln Cys Thr Tyr Arg Glu Glu Leu Arg Asp His
 245 250 255

Arg Lys Tyr Trp Cys Arg Lys Gly Gly Ile Leu Phe Ser Arg Cys Ser
 260 265 270

Gly Thr Ile Tyr Ala Glu Glu Glu Gly Gln Glu Thr Met Lys Gly Arg
 275 280 285

Val Ser Ile Arg Asp Ser Arg Gln Glu Leu Ser Leu Ile Val Thr Leu
 290 295 300

Trp Asn Leu Thr Leu Gln Asp Ala Gly Glu Tyr Trp Cys Gly Val Glu
 305 310 315 320

Lys Arg Gly Pro Asp Glu Ser Leu Leu Ile Ser Leu Leu Val Ser Pro
 325 330 335

Pro Ser Pro Gly Leu
 340

<210> 177
 <211> 312
 <212> PRT
 <213> Homo sapien

<400> 177

Gly Gly Ser Gly Glu Phe Trp Arg Lys Arg Arg Val Leu Leu Glu Leu
 1 5 10 15

Tyr Arg Pro Cys Phe Ser Gly Pro Arg Lys Val Ala Ser Ala Ser Ala
 20 25 30

Ala Ala Ser Thr Leu Ser Glu Pro Pro Arg Arg Thr Gln Glu Ser Arg
 35 40 45

Thr Arg Thr Arg Ala Leu Gly Leu Pro Thr Leu Pro Met Glu Lys Leu
 50 55 60

168

Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val Leu Gly Arg Glu
65 70 75 80

Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser Phe Arg Ser Glu
85 90 95

Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser Arg Ala Gly Val
100 105 110

Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr Leu His Lys Ile
115 120 125

Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu Thr Leu Tyr Asp
130 135 140

Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp Ser Asn Val Ile
145 150 155 160

Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala Asp Val Gly Tyr
165 170 175

Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys Asn Arg Asp Val Ile Thr
180 185 190

Leu Arg Ser Trp Leu Pro Met Gly Ala Asp Tyr Ile Ile Met Asn Tyr
195 200 205

Ser Val Lys His Pro Lys Tyr Pro Pro Arg Lys Asp Leu Val Arg Ala
210 215 220

Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser
225 230 235 240

Cys Val Ile Thr Tyr Leu Ala Gln Val Asp Pro Lys Ala Pro Tyr Pro
245 250 255

Ser Gly Trp Cys Val Cys Ser His Gly Val Gln Arg Pro Glu Cys Gly
260 265 270

Phe Trp Ser Cys Tyr Gly Val Ala Cys Cys Ser Gln Val Met Lys Pro
275 280 285

Trp Arg Ala Gln Arg Lys Ser Ala Gly Ser Lys Gly Thr Leu Cys Pro
290 295 300

Cys Ser Ala Pro Thr Gly Lys Ser

169

305

310

<210> 178
 <211> 165
 <212> PRT
 <213> Homo sapien

<400> 178

Met Ser Tyr Tyr Gln Leu Trp Ala Asp Lys Ser Tyr Ser Tyr Leu Gly
 1 5 10 15

Asn Lys Ser Tyr Ser Ser Leu Gly Asn Lys Ser Tyr Ser Ser Leu Gly
 20 25 30

Asn Lys Ser Tyr Ser Ser Leu Gly Asn Lys Ser Tyr Ser Ser Leu Gly
 35 40 45

Asn Glu Gly Pro Arg Ala Ala Ser Ser Pro Thr Trp Ala Gln Val Asp
 50 55 60

Pro Lys Gly Ser Leu Pro Lys Trp Val Val Asn Lys Ser Ser Gln Phe
 65 70 75 80

Leu Ala Pro Lys Ala Met Lys Lys Met Tyr Lys Ala Cys Leu Lys Tyr
 85 90 95

Pro Glu Trp Lys Gln Lys His Leu Pro His Phe Lys Pro Trp Leu His
 100 105 110

Pro Glu Gln Ser Pro Leu Pro Ser Leu Ala Leu Ser Glu Leu Ser Val
 115 120 125

Gln His Ala Asp Ser Leu Glu Asn Ile Asp Glu Ser Ala Val Ala Glu
 130 135 140

Ser Arg Glu Glu Arg Met Gly Gly Ala Gly Gly Glu Gly Ser Asp Asp
 145 150 155 160

Asp Thr Ser Leu Thr
 165

<210> 179
 <211> 155
 <212> PRT
 <213> Homo sapien

<400> 179

170

Glu Leu Leu Leu Ala Trp Ala Ile Arg Ala Thr Pro Ala Trp Ala Ile
 1 5 10 15

Arg Ala Thr Pro Ala Trp Ala Ile Arg Ala Thr Pro Ala Trp Ala Ile
 20 25 30

Arg Ala Thr Pro Ala Trp Ala Ile Arg Pro Lys Ser Cys Val Ile Thr
 35 40 45

Tyr Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro Lys Trp Val Val
 50 55 60

Asn Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met Lys Lys Met Tyr
 65 70 75 80

Lys Ala Cys Leu Lys Tyr Pro Glu Trp Lys Gln Lys His Leu Pro His
 85 90 95

Phe Lys Pro Trp Leu His Pro Glu Gln Ser Pro Leu Pro Ser Leu Ala
 100 105 110

Leu Ser Glu Leu Ser Val Gln His Ala Asp Ser Leu Glu Asn Ile Asp
 115 120 125

Glu Ser Ala Val Ala Glu Ser Arg Glu Glu Arg Met Gly Gly Ala Gly
 130 135 140

Gly Glu Gly Ser Asp Asp Thr Ser Leu Thr
 145 150 155

<210> 180
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 180
 cttgtgacag ccacgacttt g

21

<210> 181
 <211> 19
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 181

171

gcatccagcc aggcttctc

19

<210> 182

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 182

tttgttgtta atgtaattag agacaccag

29